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ABSTRACT

Information from the 1987 Future of New England survey is presented, gaining the perspectives of the region's business, higher education, and government leaders about five major areas of concern to the New England states: economic growth, internationalization of the economy, education and training, environmental concerns, and public policy priorities. The survey results were analyzed regionally by leadership type as well as state by state. The state issues addressed in five sections are as follows: Connecticut (education, training, and technical manpower shortages concern leaders, and biotech promises growth); Maine (improving higher education and workers' skills are priorities to Maine's leaders); Massachusetts (challenged to sustain the current economic success, Bay State leaders view biotech as their strongest hope for new economic growth); New Hampshire (leaders are optimistic about economic growth in the Granite State Despite concern over housing costs); Rhode Island (business, government, and higher education partnerships are the key to sustaining the Ocean State's future economic prosperity); and Vermont (conservation of agricultural and natural environments is a priority as the economy progresses). A copy of the Future of New England survey is appended. (SM)

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The Future of New England

1987 Survey of Business, Government and Higher Education Leaders

STATE-BY-STATE ANALYSIS

CONNECTICUT

MAINE

MASSACHUSETTS

NEW HAMPSHIRE

RHODE ISLAND

VERMONT

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The Future of New England

1987 Survey of Business, Government and Higher Education Leaders

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THE FUTURE OF NEW ENGLAND PROJECT

The Future of New England survey gained the perspectives of the region's business, higher education and government leaders about five major areas of concern to each New England state -- economic growth, internationalization of the economy, education and training, environmental concerns and public policy priorities. The survey results were analyzed regionally by leadership type as well as state-by-state.

Research was conducted by the New England Board of Higher Education (NEBHE) in cooperation with the New England Center for Continuing Education (NEC). Funding was provided with a grant from the W. K. Kellogg Foundation, Battle Creek, Michigan.

Located at the University of New Hampshire, Durham, the NEC is a cooperative educational venture of the six New England land-grant universities, whose role it is to serve as a catalyst and convener of programs and conferences, addressing regional issues with regional resources.

The New England Board of Higher Education is a congressionally authorized regional, nonprofit agency that seeks to encourage cooperation and efficient use of resources among colleges and universities in New England. NEBHE's focus in research and publications programs has primarily been on higher education's impact on the region's economic development. Basic funding comes from the region's six states and New England-based corporations. Offices are at 45 Temple Place, Boston, Massachusetts. Phone (617)357-9620.

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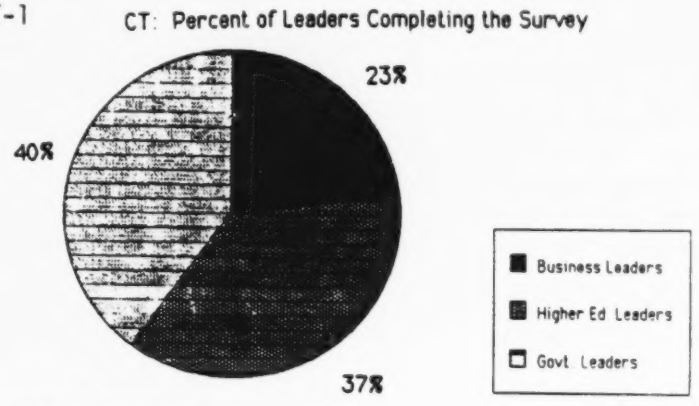
CONNECTICUT: Education, Training and Technical Manpower Shortages Concern Leaders; Biotech Promises Growth

CONNECTICUT

Government leaders dominated the leadership group in Connecticut who responded to the Future of New England survey.

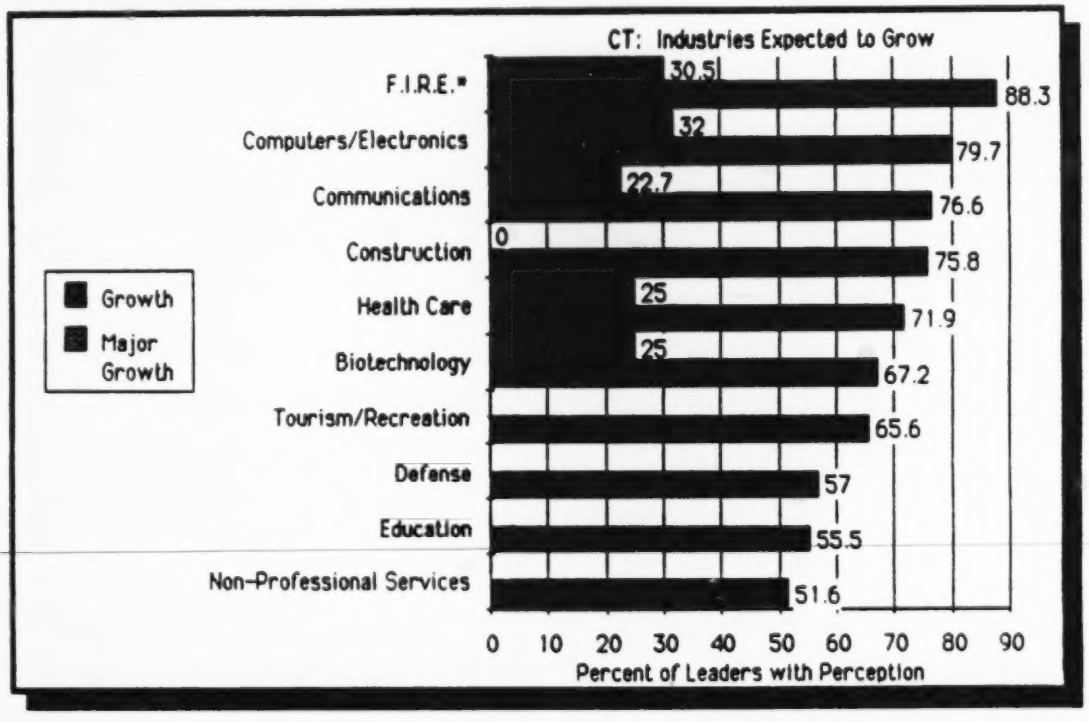
Figure-CT-1



The Connecticut Economy

Connecticut leaders expect growth in several important industries and have suggested major growth for more industries in terms of number and diversity than was the case for Massachusetts.

Figure CT-2



\+ Only those industries with growth or major growth expected by at least half of the leaders are included in this analysis.

\# Only those industries with major growth expected by at least 18 percent of the leaders are included in this analysis.

* Finance, insurance and real estate.

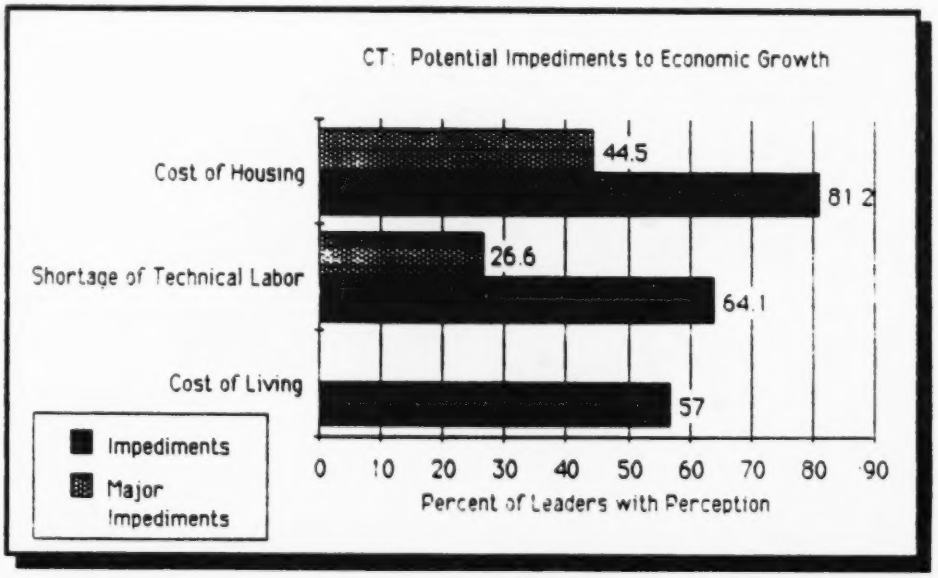
The contrast between these two southern tier states may reflect the difference between a maturing high-tech economy in Massachusetts and emerging high-tech industries in Connecticut. In addition, southern Connecticut has a cluster of large pharmaceutical and related industries which have afforded this state a unique balance of economic diversity. It may well be the state's pharmaceutical base that nurtures what is expected to be a growing biotechnology industry.

Several recent developments bode well for the biotech industry in Connecticut. In 1983 the state and Yale University jointly established a science park in New Haven for biotech R&D and commercialization. Now the home of more than 100 businesses with more than 1,000 employees, Science Park has set a record for the fastest growing new-business in the world. Similarly, a for-profit R&D corporation established in 1984 by the University of Connecticut facilitates the transfer of university research and technology for commercialization. Initiated as a pilot project of the UConn Health Center to foster biotech research, it is also now assisting the transfer of newer non-medical related technologies. Further, a biotechnology center of excellence was established at the UConn Storrs campus in 1986 by a grant from the Connecticut Department of Higher Education. The state's Product Development Corporation, designed to aid fledgling companies, has also supported development of several biology-related products. Biotechnology is clearly a priority in the state's economic development scheme.

Agriculture is the principal industry expected to decline in Connecticut. Public utilities is the industry most expected to remain stable.

Connecticut's leadership sees two major impediments to economic growth, the cost of housing, also identified as a major impediment in Massachusetts, and a shortage of skilled technical labor. Unlike Massachusetts, Connecticut has been a net exporter of its college graduates, which has probably affected the state's pool of highly educated labor. A follow-up survey of human resource managers reinforces this concern about a lack of technical manpower. Though these managers did not find their employees to be deficient in technical skills, they found these skills to be lacking among job applicants.

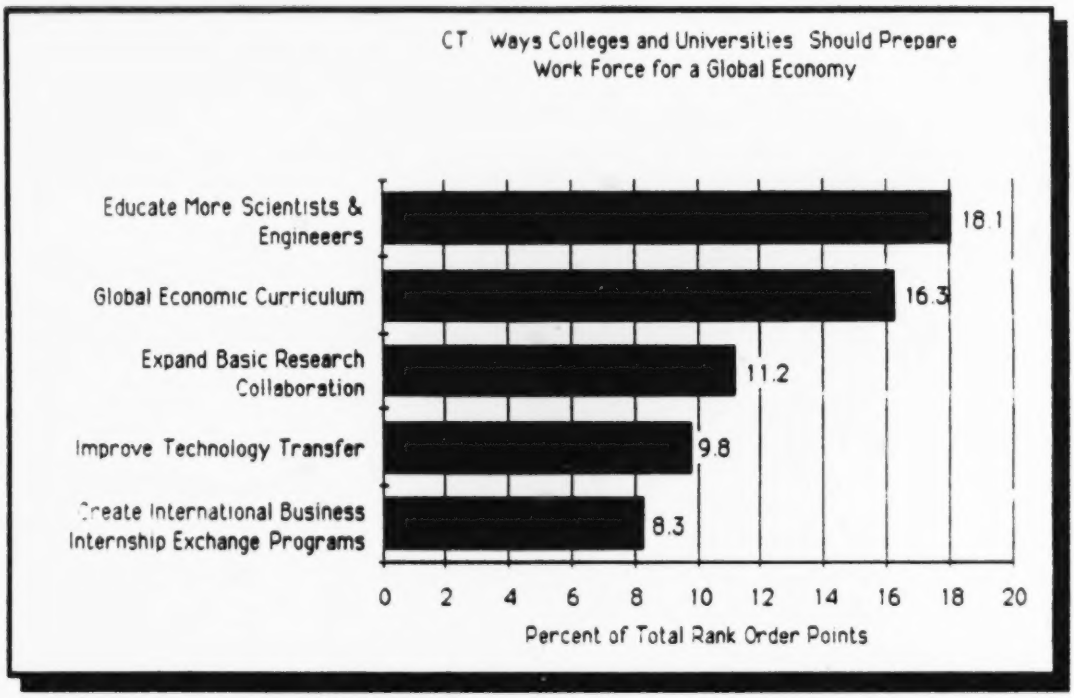
Figure CT-3



Regarding the cost of housing, the state legislature is indirectly addressing this issue and that of the cost of living by implementing a 1988 increase in the hourly minimum wage from $3.37 to $4.25. Though average incomes for Connecticut, as well as Massachusetts, are higher than for any other state, wages for non-professional service workers have not kept pace with housing and living costs.

Consistent with the concern about skilled labor is the response of Connecticut leaders to a question about how colleges can best prepare the state's workforce for a global economy. They stress the need for the state's higher education institutions to expand the supply of scientifically and technically educated men and women. Connecticut was the only New England state to select this as the number one priority in meeting the challenge of a global economy; the other five states stressed the importance of colleges designing an undergraduate curriculum that ensures understanding of a global economy.

Figure CT-4

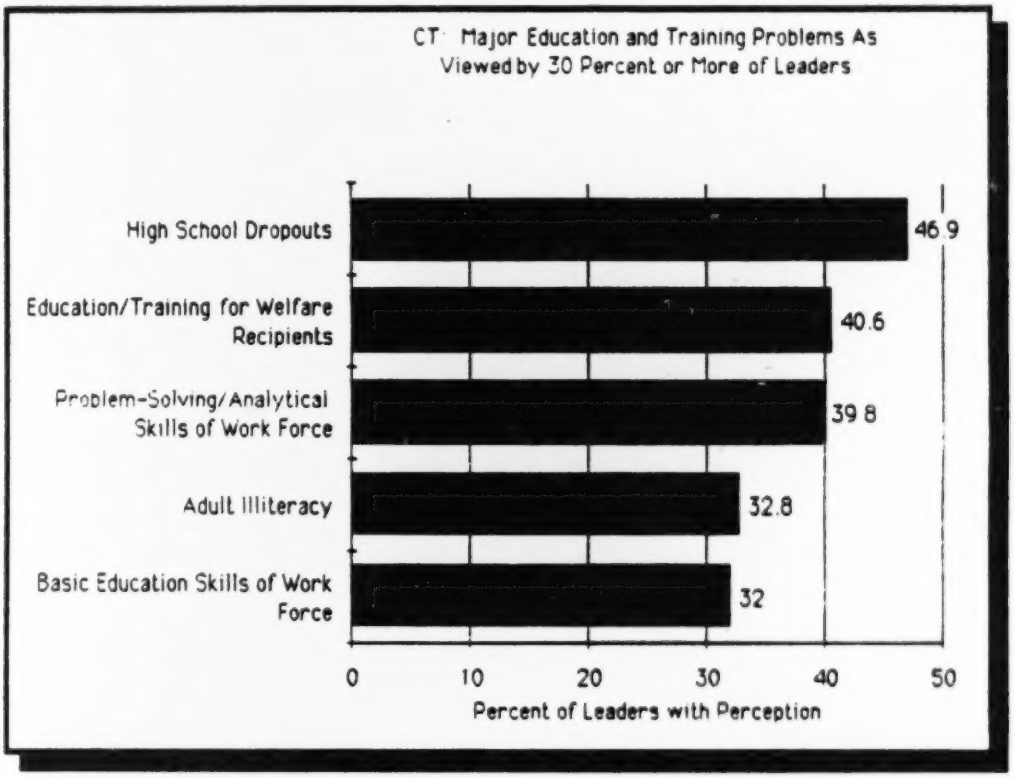

CT Ways Colleges and Universities Should Prepare Work Force for a Global Economy
Educate More Scientists & Engineeers
18.1
Global Economic Curriculum
16.3
Expand Basic Research Collaboration
11.2
Improve Technology Transfer
9.8
Create International Business Internship Exchange Programs
8.3
0 2 4 6 8 10 12 14 16 18 20
Percent of Total Rank Order Points

As is the case with Maine's and New Hampshire's leaders, Connecticut leaders further suggest that the state's colleges and universities are not effectively involved in preparing the workforce to participate in a global economy. Only 37 percent of the Connecticut leadership group view colleges and universities as effectively meeting this challenge, while 41 percent view them as ineffective. However, improving higher education is receiving special attention by both the Governor and the Legislature, as indicated in the Governor's inaugural address in January.

Education and Training Problems

More education and training issues are seen as major problems in Connecticut than in any other state. Over one-third of the leaders suggested five issues as "major" problems for the state, one of which, education and training for welfare recipients, was hardly mentioned by leaders in the other states.

Figure CT-5

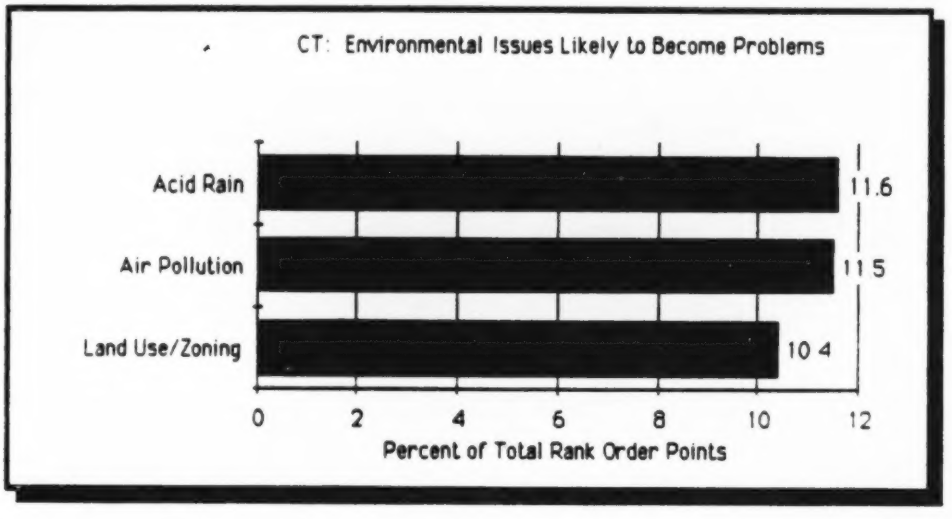


Adult illiteracy was considered a significant education and training problem among employees by human resource managers of Connecticut businesses who responded to the follow-up education and training survey. The managers further indicate that adult illiteracy is even more acute among applicants for potential jobs. Basic math and problem-solving skills are also found to be lacking among employees and new recruits. Several of these issues were given as both the General Assembly's and the Governor's priorities for 1987, including job training, retraining and improved educational opportunity. Clearly, education and training are major concerns for the future of Connecticut.

Environmental Problems

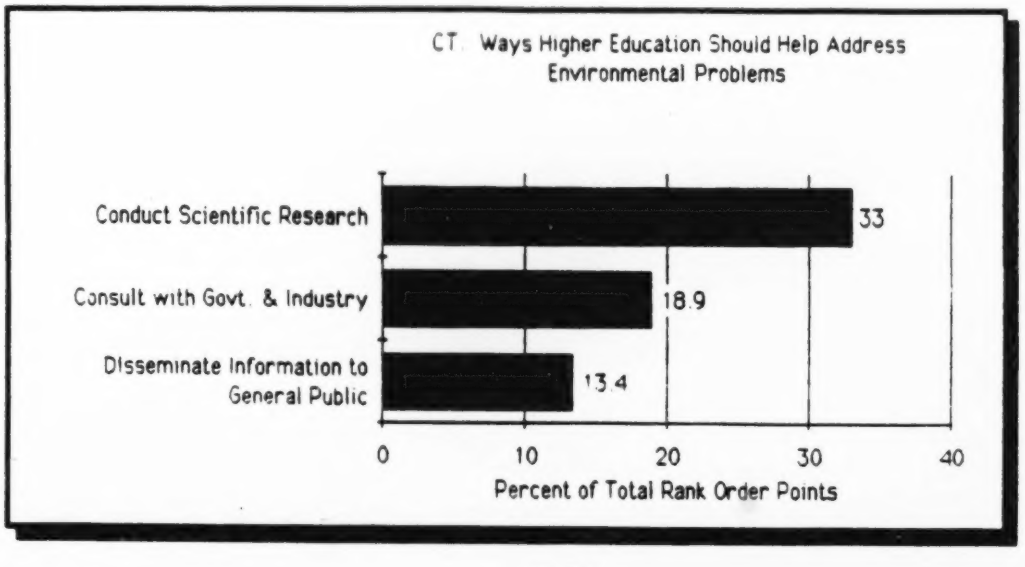
Viewed the most serious environmental problem in Massachusetts, hazardous waste is also considered an issue in Connecticut but not as critical as solid waste disposal. Likewise, traffic congestion is viewed as a serious problem to more than half the state's leaders as well. Acid rain is seen as the environmental concern most likely to become a serious problem in Connecticut if steps are not taken to deal with it.

Figure CT-6



Connecticut's leaders agree with their counterparts in Massachusetts that conducting scientific research is the most important way that colleges and universities can effectively address environmental problems. Leaders in the Nutmeg state also believe it important for colleges to provide information on the environment to the general public.

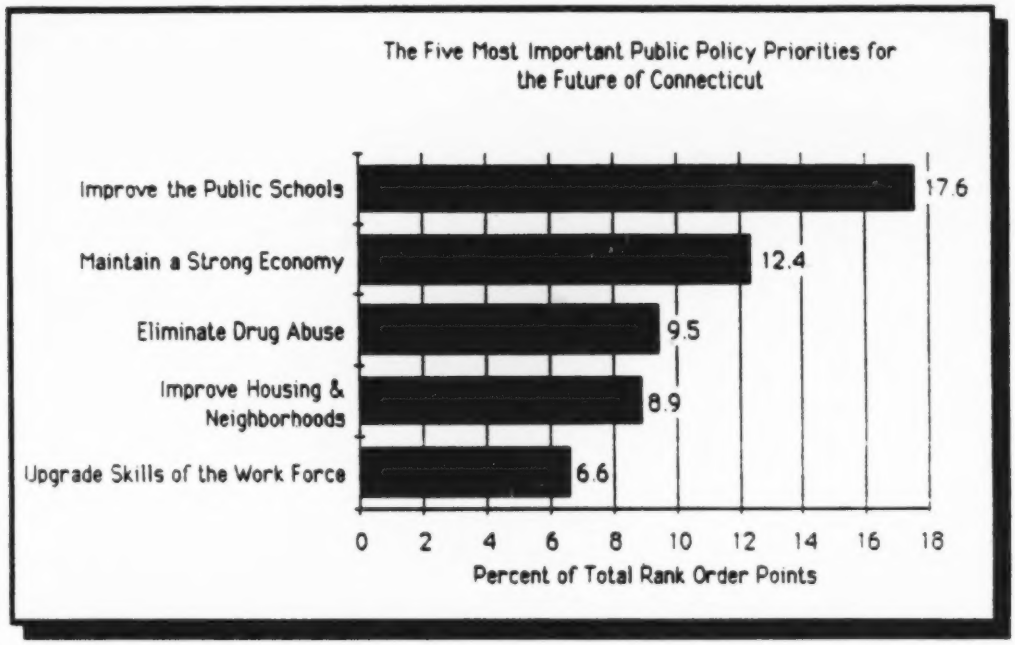
Figure CT-7



Public Policy Priorities

Not surprisingly, three out of the five most important public policy issues identified by Connecticut leaders who answered this survey have also been given priority by state government officials.

Figure CT-8


The Five Most Important Public Policy Priorities for the Future of Connecticut
Improve the Public Schools
17.6
Maintain a Strong Economy
12.4
Eliminate Drug Abuse
9.5
Improve Housing & Neighborhoods
8.9
Upgrade Skills of the Work Force
6.6
0 2 4 6 8 10 12 14 16 18
Percent of Total Rank Order Points

According to the New England Caucus of State Legislatures, three committees created this year will confront issues of high priority to the Governor and democratic legislators -- housing, drug abuse and job training.

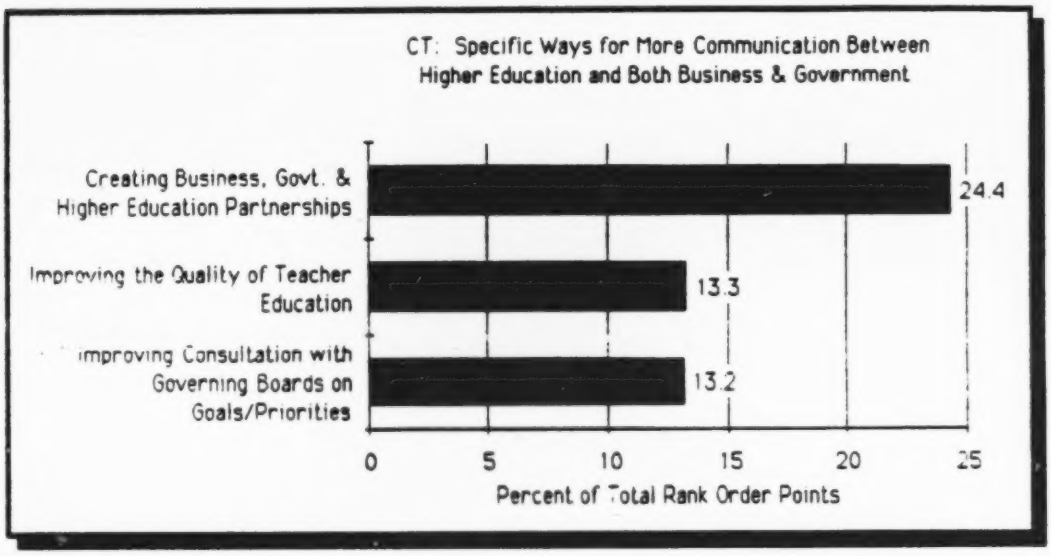
The Select Committee on Housing will address ways to improve access to housing and raise revenues from the real estate transfer tax to fund affordable housing and provide for the homeless.

The Select Committee on Substance Abuse plans to implement drug education programs and heighten law enforcement strategies for drug traffic offences.

The Select Committee on the Work Place will explore job training and retraining as well as the impact of the workplace on the family.

Improving the public schools, the top public policy priority, was emphasized when Connecticut leaders were asked to suggest ways that institutions of higher education might more effectively communicate both with government and business industry. They stressed the importance of collaboration that would effectively improve the quality of teacher education.

Figure CT-9

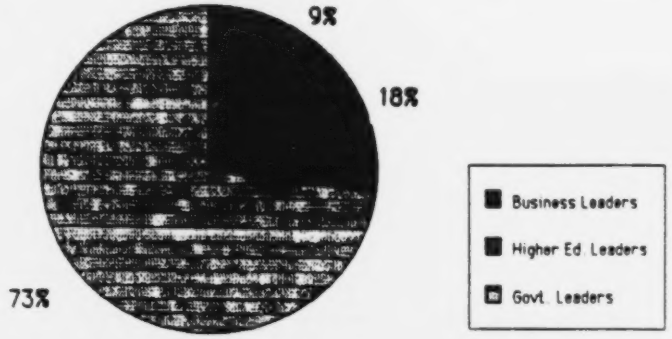

CT: Specific Ways for More Communication Between Higher Education and Both Business & Government
Creating Business, Govt. & Higher Education Partnerships
24.4
Improving the Quality of Teacher Education
13.3
Improving Consultation with Governing Boards on Goals/Priorities
13.2
0
5
10
15
20
25
Percent of Total Rank Order Points

MAINE: Improving Higher Education and Workers' Skills are Priorities to Maine's Leaders

MAINE

Maine's leadership group is second only to New Hampshire in the percentage of government leaders responding to the Future of New England survey.

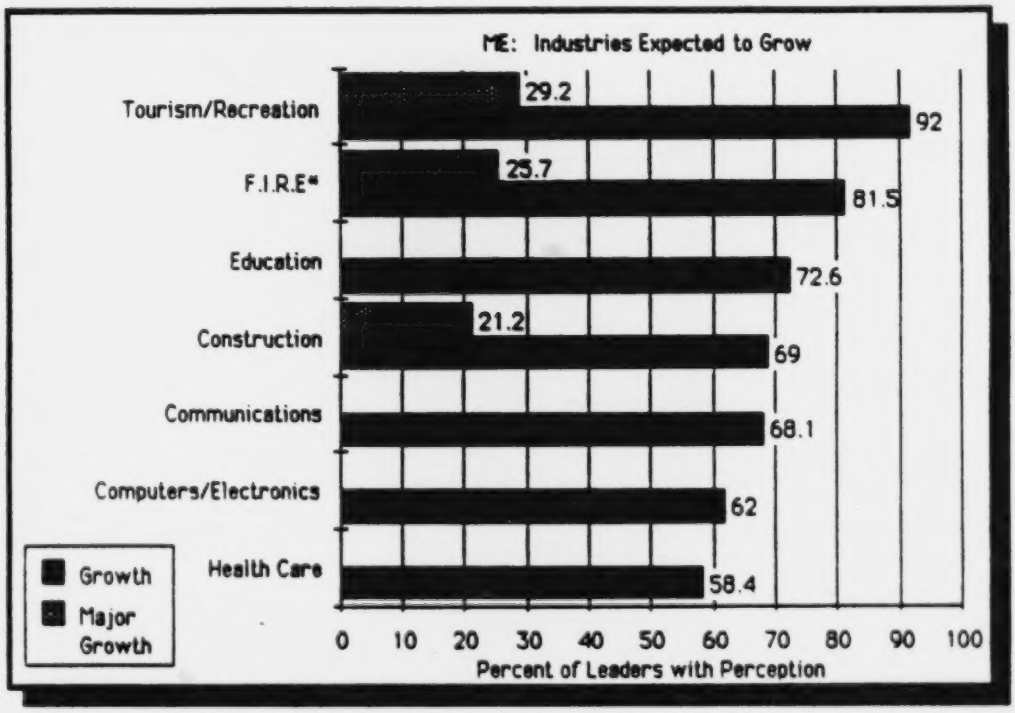
Figure ME-1 ME: Percent of Leaders Completing the Survey



The Maine Economy

Of the industries expected to grow in Maine, three are predicted to experience major growth -- tourism/recreation, FIRE and construction.

Figure ME-2



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* Finance, insurance and real estate.

In keeping with the state's traditional reliance on the tourism industry, Maine's leaders are confident that this sector will continue to experience not only growth, but major growth. The booming regional economy undoubtedly has a major impact on leisure time. Appropriations for tourism show a 9 percent growth rate over two years and the tourism industry supports 49,000 jobs in the state, second only to the timber industry. Maine's primary tourism market comes from the Northeast where 25 to 30 million people live within a day's drive. The Legislature's proposed $128-million expansion of the Maine Turnpike is bound to encourage travel in the state.

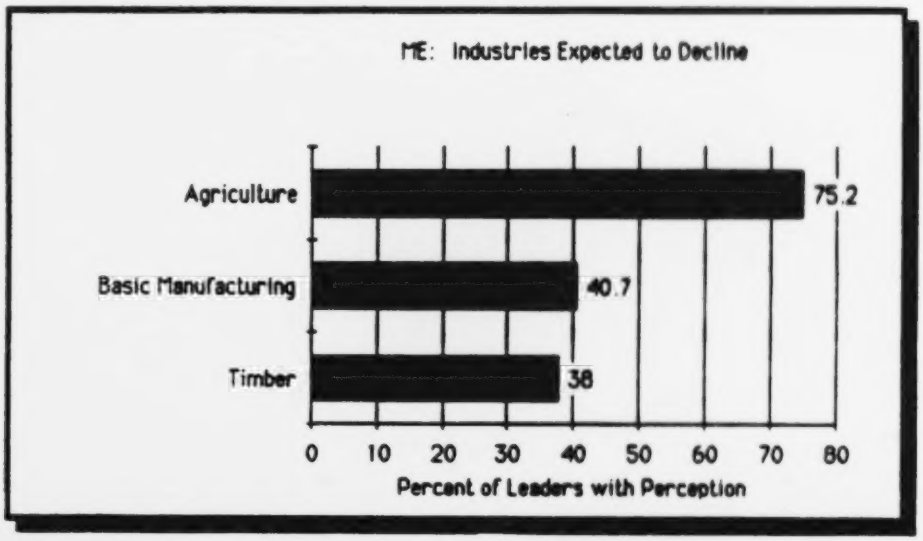
Agriculture is the industry considered most likely to decline in Maine. However, Maine's farmers are developing innovative ways to cope with the changing market. Blueberry farmers are forming a union-like Blueberry Growers Council that will help growers to get the best price and expand markets into such products as fruit wines. The $35-million industry suffered because of processors who began freezing the fruit and from a blueberry glut in 1982.

Similarly, the Maine Potato Board has hired an advertising firm to promote the Maine potato after it lost ground to the Idaho Russet. In Maine's northernmost county the number of acres devoted to potato farming fell from a 1950s high of 220,000 to a 1986 low of 84,00, the lowest since 1906. As a result the number of potato farmers fell from 5,000 to 750 which caused an overall population decline in Northern Maine. The Board has allocated $380,000 to promote the Maine Spud. Idaho currently spents $3 million.

Non-high technology manufacturing is also predicted to decline by a significant percentage of Maine's leadership. Despite all the investment in Maine's leading manufacturing industry, paper, jobs have declined from 1,800 to 1,600 over the past two years.

Likewise, timber is also expected to decline. In June 1987 a delegation from academia and business traveled to Sweden to study that country's system of successful forest management. Maine currently has not reached agreement on a basic forest management policy among all the competing interests. Other study panels have also been formulated; the Maine Audubon Society has set up a study group and the legislature has created Forest for the Future, with the goal of developing a forest policy for the future of Maine.

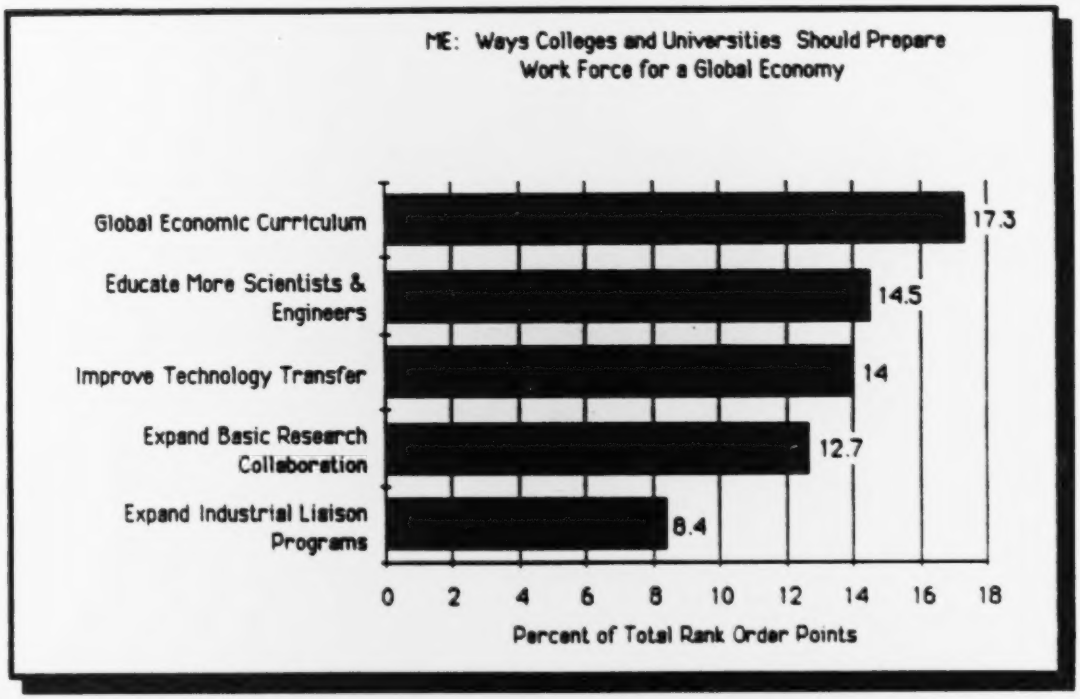
Figure ME-3



A shortage of skilled technical labor is seen as the biggest impediment to Maine's economic growth. In fact, more Maine leaders suggest that the shortage of skilled technical labor is a major impediment to economic growth in the state than is the case for any other New England State. In particular, many of the state's leaders referred to the problem of Maine residents becoming educated in Maine and then migrating to areas of greater employment opportunity.

Regarding Maine's ability to compete in the global economy, expansion of exports by Maine's corporations and promotion of international tourism are both seen as major benefits. Like Massachusetts leaders, Maine leaders also view the education of more scientists and engineers as most critical to enabling the state to compete internationally.

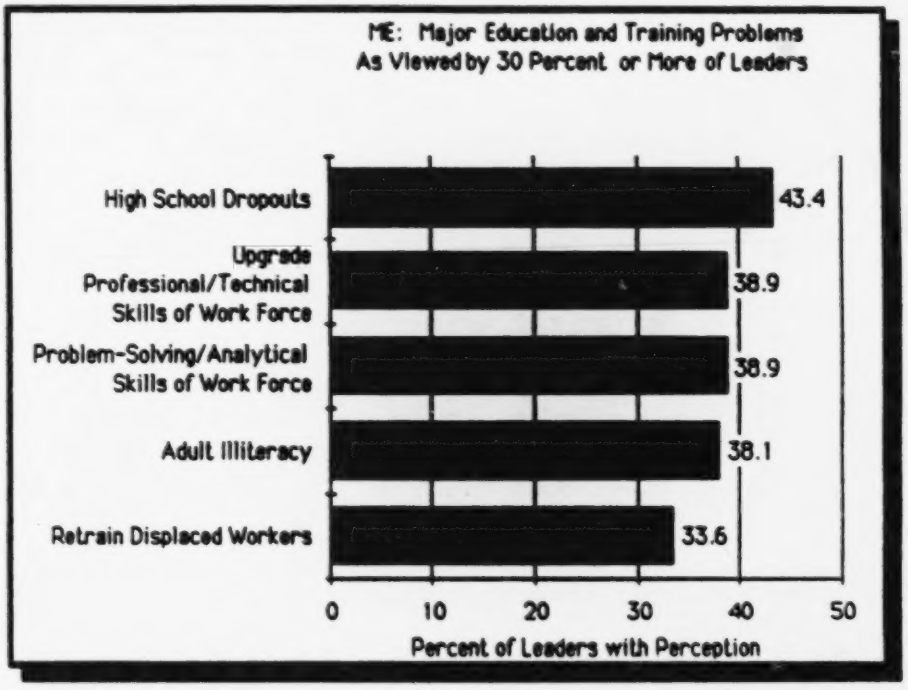
Figure ME-4



Education and Training

Maine's leaders agree with the leaders of the five New England states that the high school dropout issue is the most serious education and training problem facing their state. Upgrading the professional and technical skills of the workforce is also seen as a major education and training problem. This is not surprising in light of the leaders' flagging of a shortage of skilled technical labor as a hindrance to economic growth. Adult illiteracy is considered the third most serious problem.

Figure ME-5

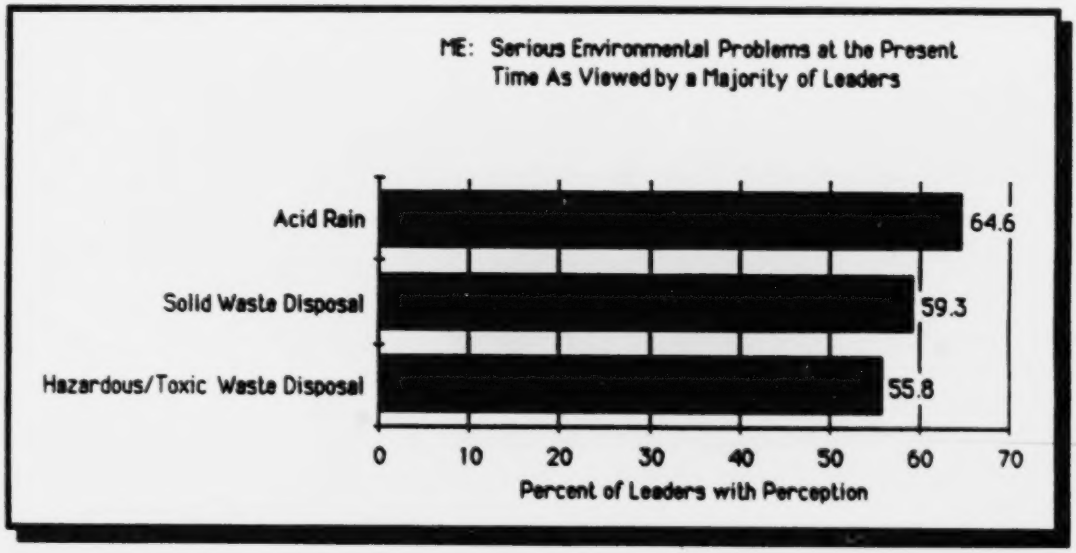


Adult illiteracy is also emphasized by human resource directors as a problem among their employees as well as when recruiting new employees in a follow-up survey which identified education and training problems in New England companies and organizations.

Environmental Issues

As was true for the other two northern tier states, acid rain is clearly viewed as the most significant environmental problem in Maine with recent attention given to the harmful effects of acid fog on the Red Spruce.

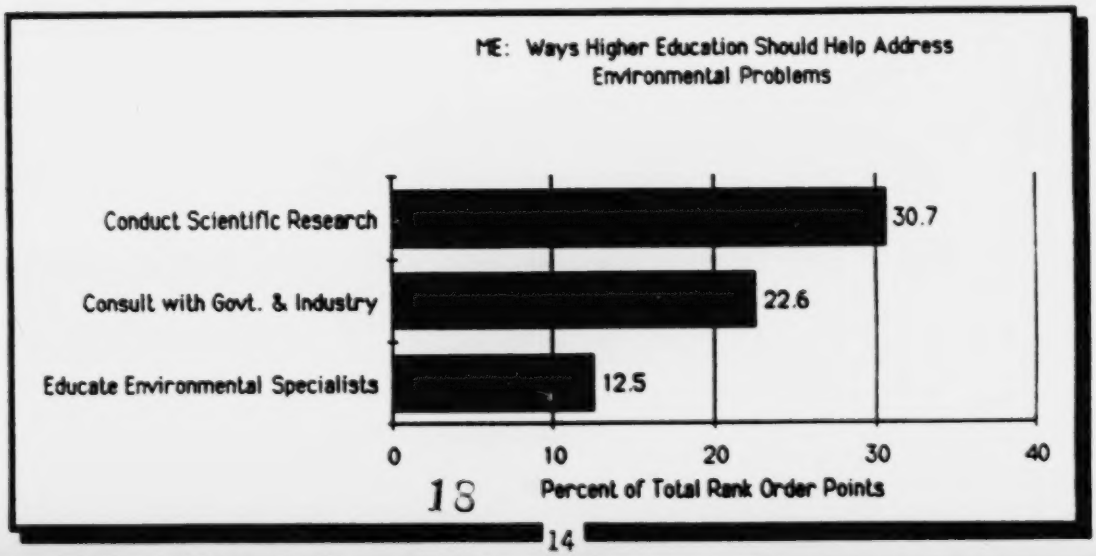
Figure ME-6



Maine has six hazardous waste sites in Gray, Augusta, Saco, Washburn, Winthrop and Brunswick, recently added to the list by the Federal Environmental Protection Agency. Left off the Superfund list was the Union Chemical Company site in South Hope, where residents last month voted to spend $20,000 to hire a toxicologist to assess health risks and advise on clean-up.

Like Massachusetts leaders, Maine leaders emphasize that colleges and universities could most help the state address environmental issues by engaging in scientific research. Colleges could also be effective in addressing environmental problems by consulting with government and industry and through educating environmental specialist.

Figure ME-7

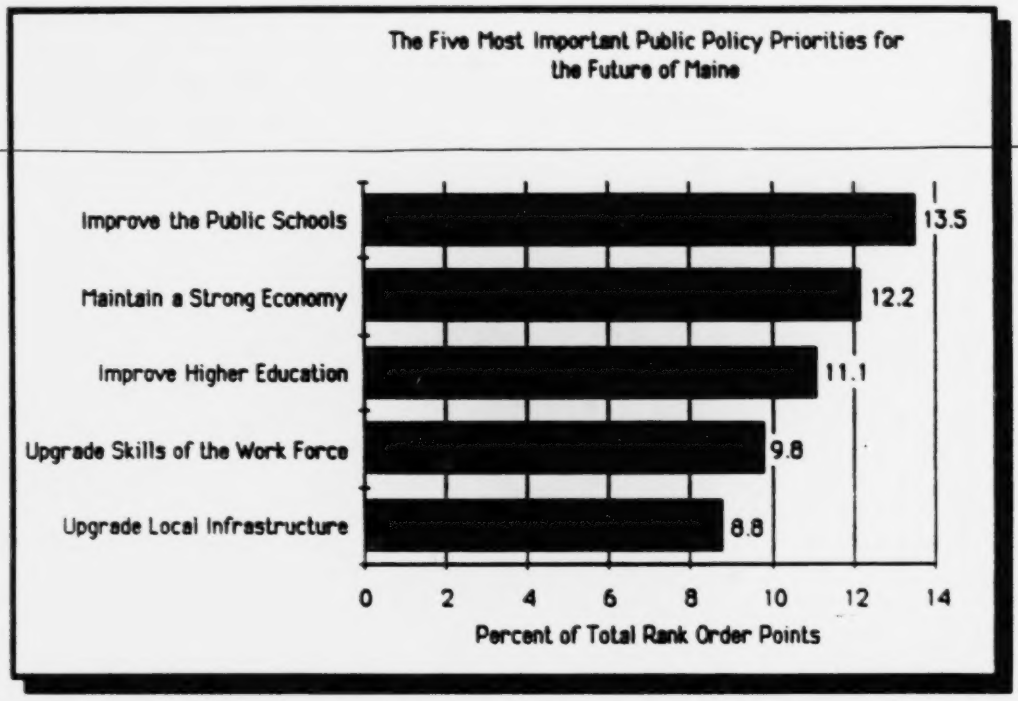


Public Policy Priorities for Maine

Improving public schools is Maine's number one public policy priority. The state's leadership also places high priority on maintaining a strong economy and improving higher education. State appropriations for higher education in 1987-88 are up a dramatic 39 percent from 1985-86, an increase that ranks Maine #1 nationwide in two-year funding gains.

In response to an open-ended question, "What is the singlemost important thing that you would like to see colleges and universities do differently to enhance the future of your state?", Maine's leaders emphasized the importance of education, business and government partnerships as well as the need for greater cooperation among campuses as well as between public and private colleges and universities in the state.

Figure ME-8

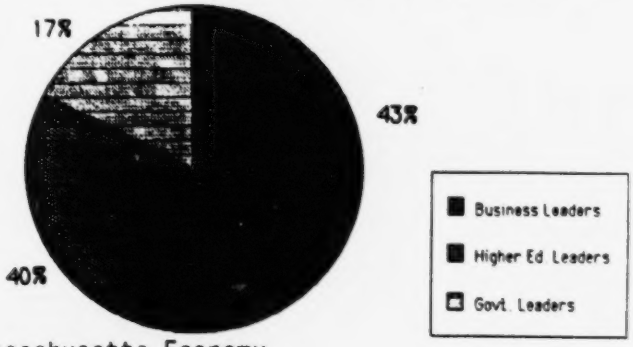


MASSACHUSETTS: Challenged to Sustain the Current Economic Success, Bay State Leaders View Biotech as Their Strongest Hope for New Economic Growth

MASSACHUSETTS

Unlike the other six states, the Massachusetts picture is strongly colored by the state's business sector. A large percentage of the Bay State's respondents to the survey were business leaders.

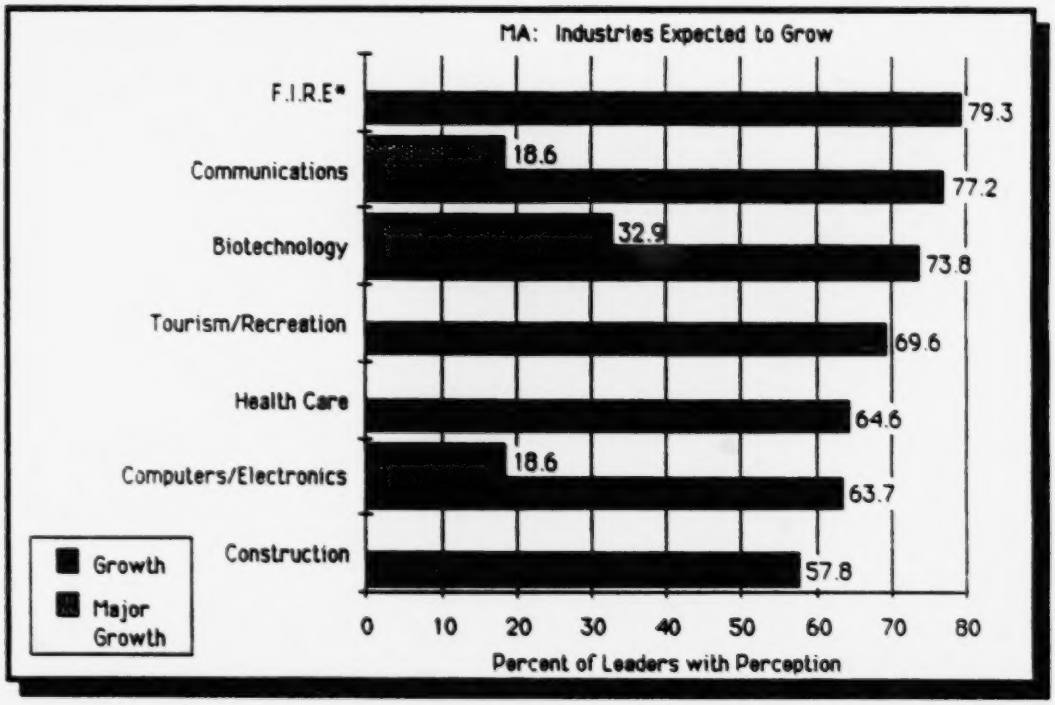
Figure MA-1 MA: Percent of Leaders Completing the Survey



The Massachusetts Economy

Three of the state's industries are predicted to experience significant growth in the future. They are finance, insurance and real estate; communications and biotechnological manufacturing.

Figure MA-2



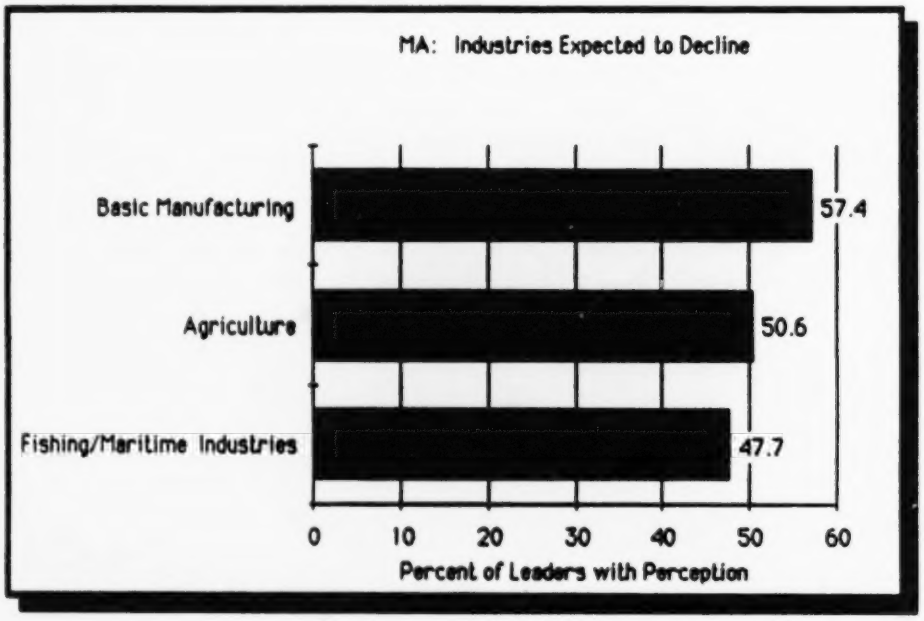
\+ Only those industries with growth or major growth expected by at least half of the leaders are included in this analysis.

\# Only those industries with major growth expected by at least 18 percent of the leaders are included in this analysis.

* Finance, insurance and real estate.

More than any other industry, biotechnology is expected to experience major growth. The communications and computers and electronics industries are also expected to see major growth. Economic decline is predicted to continue in three industries, a number higher than in any of the other five New England states. Massachusetts' goal will be to sustain an already strong economy, rather than building from a weaker position. It is more likely the service sector rather than manufacturing where the Bay State might expect growth. About 50,000 manufacturing jobs have been lost over the last two to three years. Only the public utilities industry is expected to see little change.

Figure MA-3

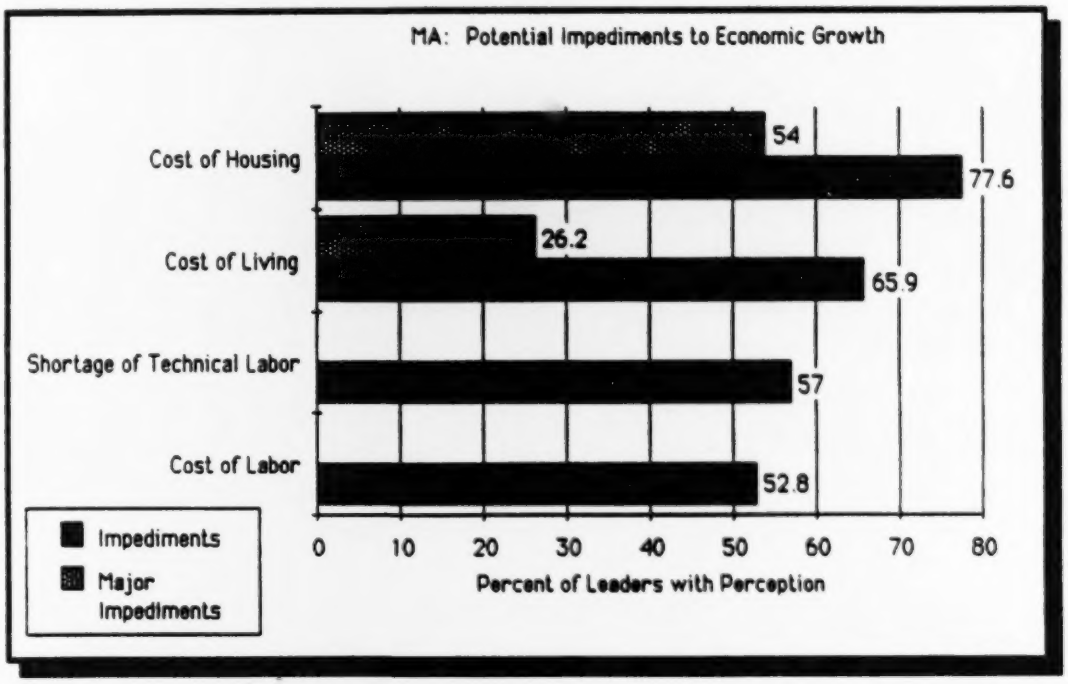


* Only those industries expected to decline by at least half of the leaders are included in this analysis.

Biotechnology's growth can be attributed to several companies emerging in the greater Boston and Worcester area. Whether it becomes a major growth industry in the state remains to be seen. However, the Commonwealth is fostering such industrial development through the establishment of the Massachusetts Biotech Research Park in Worcester. Designed to provide loans, grants and a variety of state projects as incentives, this facility is near Worcester Polytechnic Institute, the Worcester Foundation for Experimental Biology and the UMass Medical Center. Though there are currently only four tenants, as many as 30 are expected in the near future. The park plans to offer over 1 million square feet for biotech. In the greater Boston area, many biotech companies are emerging as spinoffs from university-based research. These companies continue informal relationships with the area's universities, medical schools and teaching hospitals.

The cost of housing is viewed as the key impediment to economic growth in the Bay State. A shortage of skilled technical labor and the cost of living are also considered potential obstacles.

Figure MA-4



+ Only those obstacles viewed as impediments or major impediments by at least half of the leaders are included in this analysis.

* Only those obstacles viewed as major impediments by at least one-fourth of the leaders are included in this analysis.

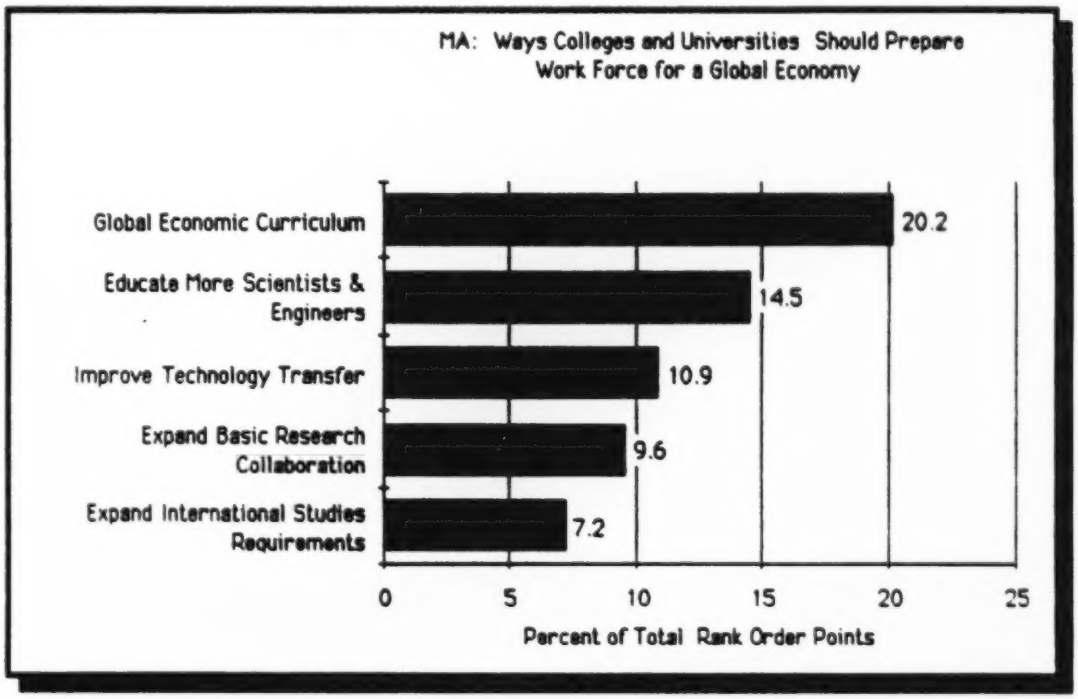
The Massachusetts economy is not expected to be hurt by an inability to attract the skilled technical labor vital to the Commonwealth's high-tech economy to the degree indicated by Connecticut, Maine and Rhode Island leaders. The State is expected to continue its trend of keeping large numbers of highly educated college graduates who contribute to sustaining a high-tech economy. However, Massachusetts housing costs have already begun to effect the Commonwealth's ability to fill lower-level service positions. For example, reports indicate that service workers on the Cape must be paid $5.00 per hour--the area's new "minimum wage." Yet, seasonal businesses are still unable to meet labor needs because of the cost of housing. Clearly, housing costs will be a critical issue for Bay Staters over the next decade. The Massachusetts Housing Partnership, formed by Governor Dukakis in 1985 as a cooperative public/private effort to address housing needs and to broaden local opportunities for providing affordable housing is a recent effort aimed at dealing with this issue.

Regarding the state's ability to compete in the international marketplace, the education of more scientists and engineers is viewed as the

singlemost critical issue. Expansion of exports by Massachusetts corporations and promotion of international tourism in the Bay State are also seen as effective ways of strengthening the state's involvement in the global economy. The state's Division of Tourism suggests that international tourists are being attracted from Britain, Japan, France and Germany where special print and media campaigns have been sponsored. Tourism in Massachusetts is a $6.2 billion business with a ripple economic effect of almost $11 billion. Aprroximately 91,000 tourism job holders earned $1.19 billion in 1985, the last year for which figures are currently available. The international market has grown large enough to warrant special funding for promotion.

A very high percentage of Bay State leaders believe that colleges and universities are effectively preparing the workforce to participate in the global economy. Whereas, regionally, less than half of the leaders consider colleges effective.

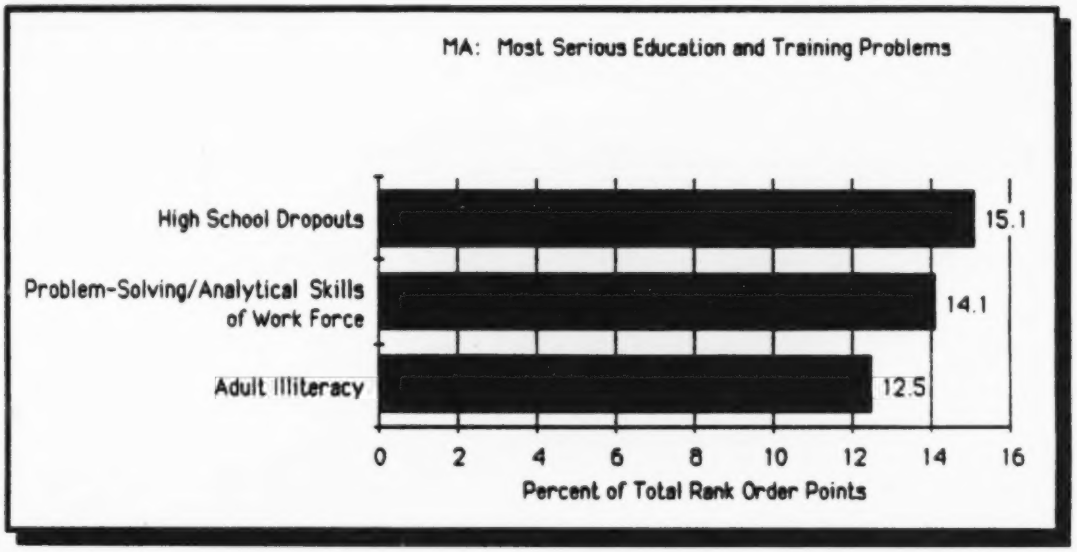
Figure MA-5



Education and Training Problems

In rating eight issues as education and training problems, leaders identified the high school dropout issue as the most serious problem in Massachusetts. In Boston where the high school dropout rate is estimated at 43 percent, project STEP, a summer training and education program, has been designed to help 9th and 10th grade students in need of reading, math and other remedial skills that will help prevent them from dropping out of school. Facilities are donated by area public and private universities, while college students serve as aides in the program.

Figure MA-6



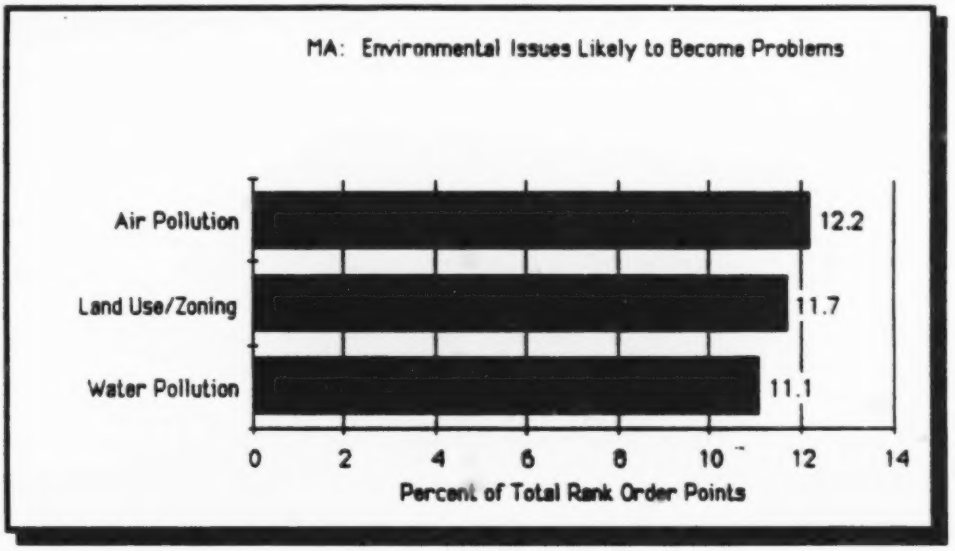
The state's adult illiteracy problem was also emphasized by human resource directors in a separate survey that identified education and training problems in New England companies and organizations. A significant number of those respondents identified adult illiteracy as a problem or major problem among their employees. Further, many of the human resource executives indicated that adult illiteracy is also a problem they face when screening potential job applicants. The high school dropout issue, if not effectively dealt with in the coming years, may lead to a deepening of adult illiteracy problems for Massachusetts.

The adult illiteracy problem is viewed by many business leaders as a result of a gap between basic skills of entry level workers and the demands of increasingly more technical jobs in an advancing technological economy. A recent effort to combat the problem includes a pilot "Literacy Corps" program established in Boston through a small grant from the Bank of Boston. Through the Literacy Corps Boston area college students serve as tutors in basic literacy skills to people in such settings as schools, prisons and Head Start programs. In addition, a statewide literacy initiative, funded by the Executive Office of Labor, the Department of Education and the Office of Training and Employment Policy, is piloting 15 model programs to tackle workplace education problems.

Environmental Issues

Hazardous or toxic waste and solid waste disposal are identified as the two most serious environmental problems plaguing Massachusetts. A majority of leaders also view traffic congestion as a serious problem at the present time, while almost half mention that acid rain is also. Five more issues are predicted to become serious problems if preventative actions are not taken.

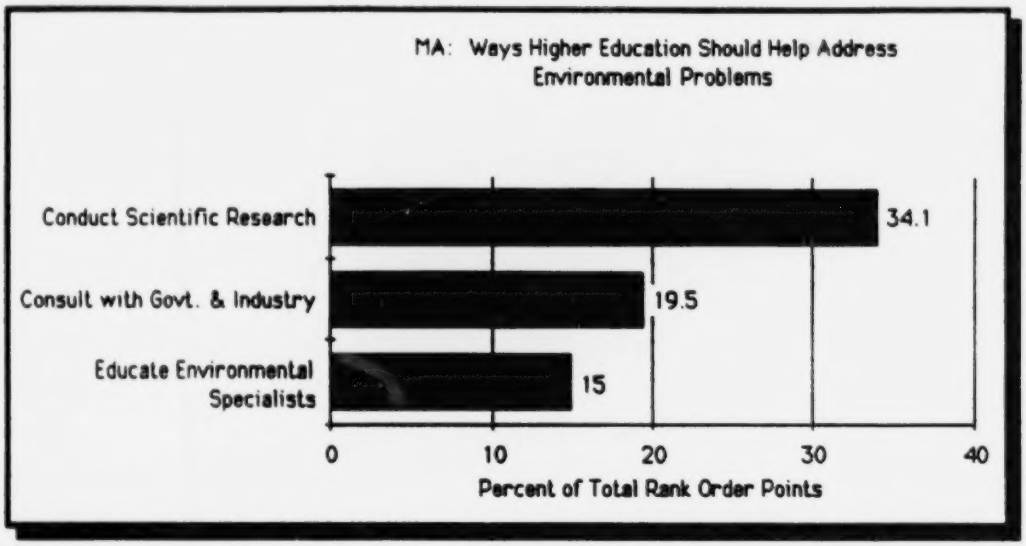
Figure MA-7



The citizens of the Commonwealth strongly voiced their concerns about hazardous waste clean-up last November in response to ballot Question 4. Earlier this year, the DEQE began identifying and investigating contamination sites and in May recommended a massive infusion of funds and staff to tackle the hazardous waste problem. On another front, working its way through the Legislature, is an act drafted by MASSPIRG, the state's public interest research group, that would require industry to reduce its use of potentially hazardous chemicals. MASSPIRG has also been identifying community water supplies already contaminated or at risk because of nearby potentially hazardous waste sites.

Colleges and universities are seen as having an important role to play in helping to address environmental issues in Massachusetts. There is an overwhelming consensus among Massachusetts leaders that colleges can be most effective by conducting scientific research designed to address environmental problems.

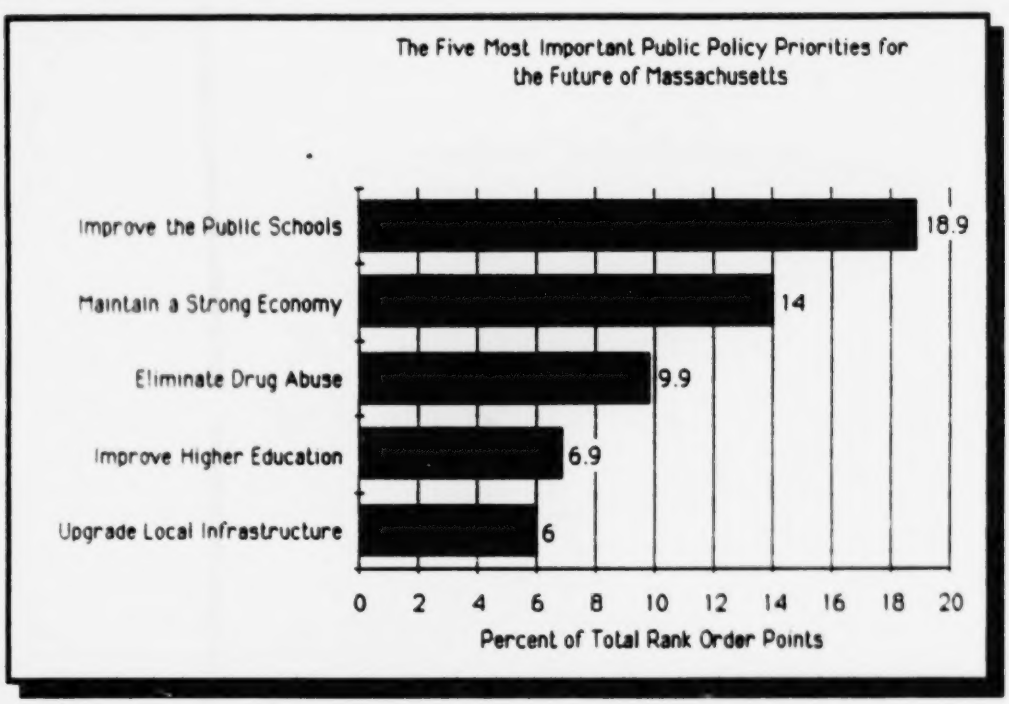
Figure MA-8



Public Policy Priorities for Massachusetts

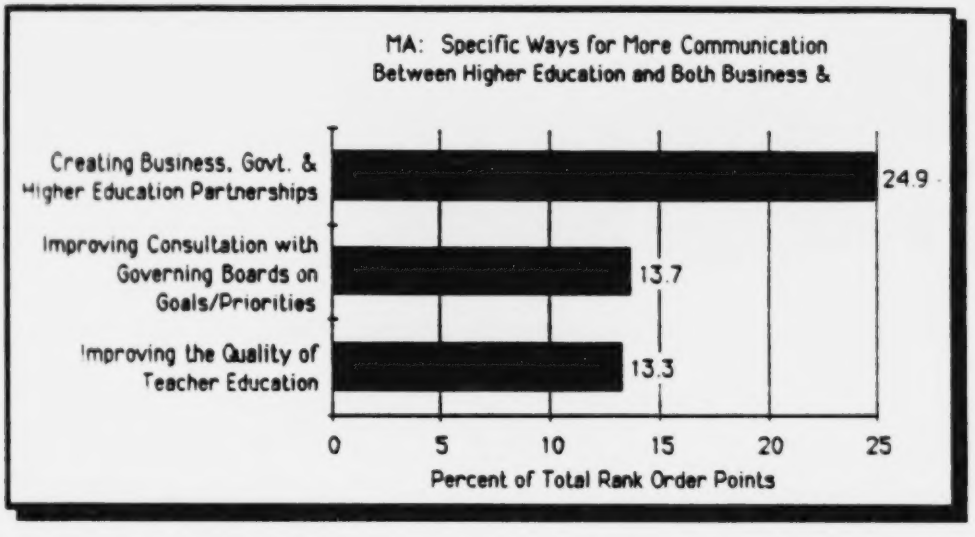
When asked to rank the five most important public policy issues for the state, Massachusetts leaders selected the same top four as were selected by all leaders, when pooled as a regional group. The fifth differs. It is worth noting that four of the five are closely related to initiatives that will sustain the Commonwealth's economy.

Figure MA-9



Though the state's public and private institutions of higher education have been viewed as effective in preparing the workforce for a global economy by more than half of the state's leaders, improvement in this arena is given top priority. Further, Bay State leaders strongly believe that more effective communication should occur between higher education institutions and both the business and government sectors.

Figure MA-10



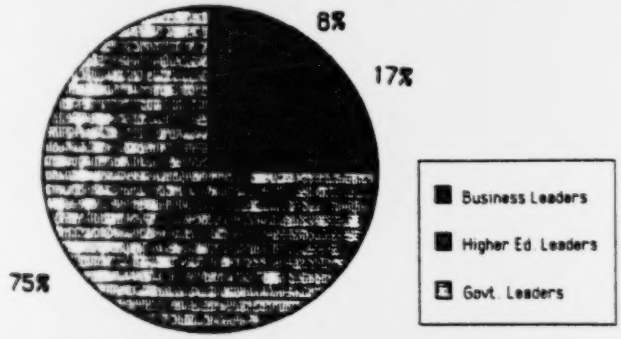
A capital investment program for the public system of higher education in Massachusetts came before the House Ways and Means Committee this summer as the first phase of a 10-year comprehensive capital program designed to modernize and more effectively equip institutions of higher education. The plan developed as a result of the cooperative planning efforts of the 29 colleges and universities, the Board of Regents and the Administration. This example of improved consultation between higher education and governing boards may be the start of the kind of effective communication emphasized by the leadership groups.

NEW HAMPSHIRE: Leaders Optimistic About Economic Growth in the Granite State Despite Concern Over Housing Costs

NEW HAMPSHIRE

As was also the case for Maine, Vermont and Rhode Island, the Future of New England survey in New Hampshire was completed by more government leaders than any other group.

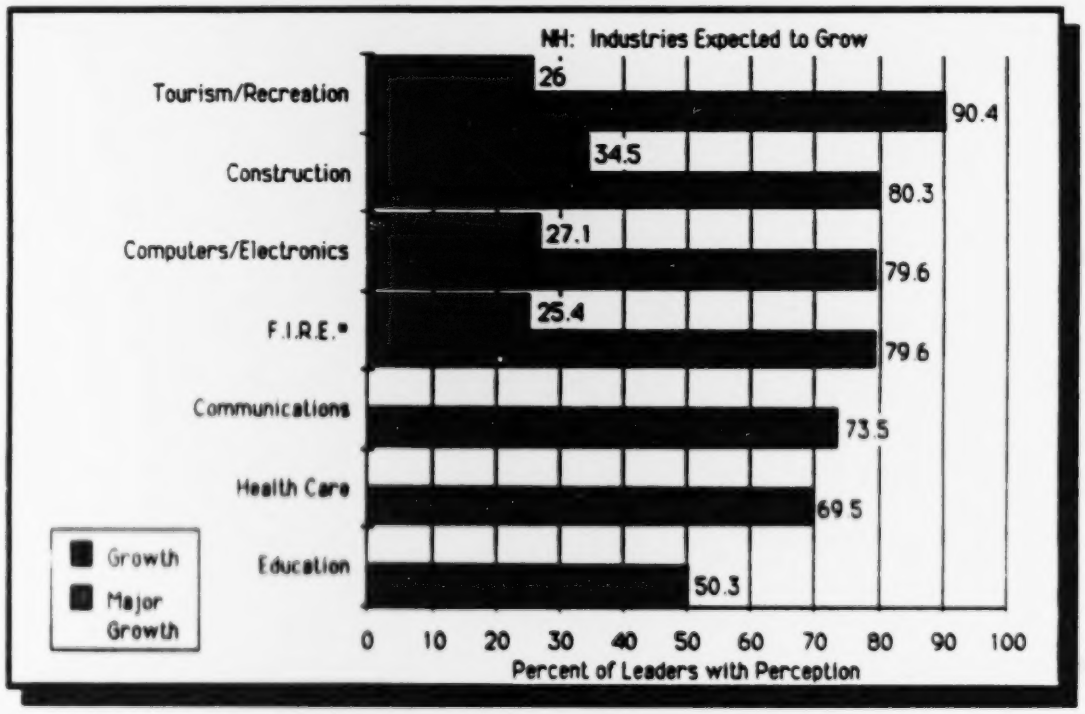
Figure NH-1 NH: Percent of Leaders Completing the Survey



The New Hampshire Economy

Not only are New Hampshire leaders optimistic about growth for six industries in the state, but also they expect four of the six -- construction, FIRE, computers/electronics and tourism to undergo major growth. Like their counterparts in Connecticut and Rhode Island, New Hampshire leaders foresee a rosy scenario for their state's economy.

Figure NH-2



\+ Only those industries with growth or major growth expected by at least half of the leaders are included in this analysis.

\# Only those industries with major growth expected by at least 18 percent of the leaders are included in this analysis.

* Finance, insurance and real estate.

As with Vermont leaders, a large majority of New Hampshire leaders (almost 72 percent) predict decline in agriculture. However, the conservation of agricultural lands and natural environments is the number five public policy priority to New Hampshire leaders. Not only is agriculture seen as a declining industry, but there is concern about halting that decline both in New Hampshire and neighboring Vermont.

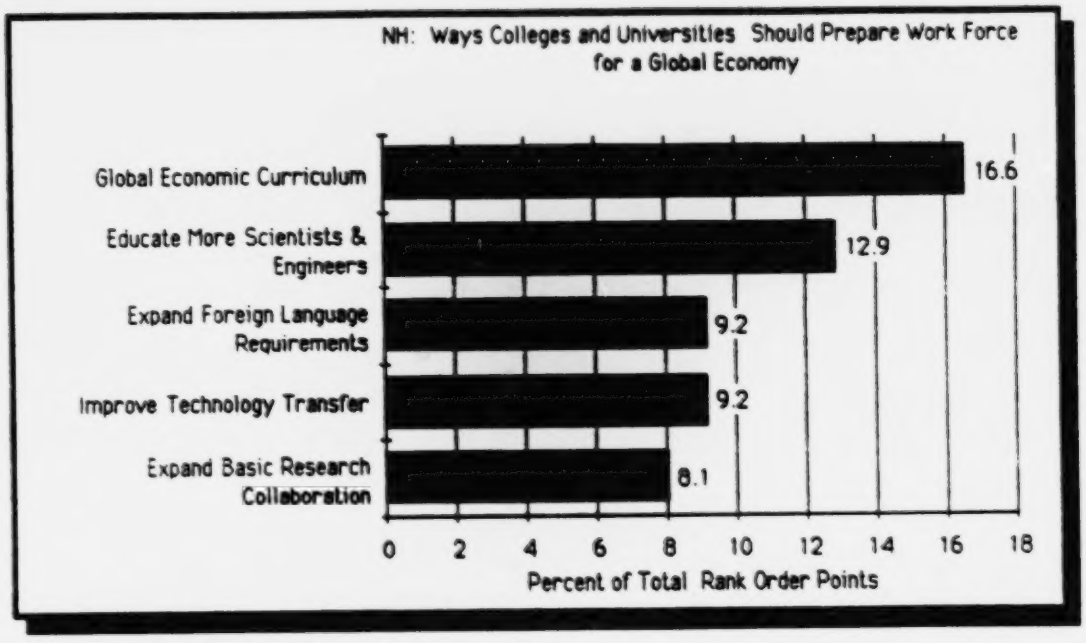
A substantial number of New Hampshire leaders (almost 70 percent), though not as many as in Massachusetts and Connecticut, consider housing costs an impediment to the state's economic growth. Furthermore, about 38 percent view housing costs to be a major impediment to growth. Because of a low unemployment rate it would make sense for business and government to find ways to attract skilled workers from other parts of the country where unemployment is a problem. But getting people to move to New Hampshire is difficult because of high housing costs. Hourly workers find they can't afford to live here, with the average price of a house hovering well above $100,000 and apartment rentals exceeding $500 per month. A shortage of skilled technical labor is considered an impediment to economic growth by almost 73 percent of New Hampshire's leaders; 34 percent consider it a major impediment.

Less than half of the leaders consider an energy shortage an obstacle to growth although it has been forecasted that the region will need the equivalent of six major generating plants between now and the year 2000 in addition to Seabrook and power purchased from Quebec. Though it is not seen as an impediment to economic development, providing affordable energy is the number four public policy priority to New Hampshire leaders. This group most likely views the energy problem as a correctable one, thus eliminating it as a possible impediment to future growth.

On the positive side, a large majority of leaders suggest that the tax structure and lack of government regulation of industry favor economic development in the Granite state. A recent study by Dartmouth economists, Colin Campbell and Thomas Barthold, suggests that one of New Hampshire's leading exports is a substantial portion of its tax burden. New Hampshire's heavy reliance upon property taxes allows the state to export approximately one-third of the real estate tax burden because a substantial amount of property is owned by out-of-staters.

Like their counterparts in Connecticut and Maine, less than half (39 percent) of New Hampshire leaders view the state's public and independent colleges and universities as effectively involved in preparing the workforce to participate in a global economy. However a consortium of state college and university presidents recently lobbied the legislature for a 34 percent increase in state aid to improve higher education. Leaders would like to see higher education institutions better prepare graduates for global economic competition in five ways. New Hampshire was the only New England state to emphasize the importance of expanding foreign language requirements.

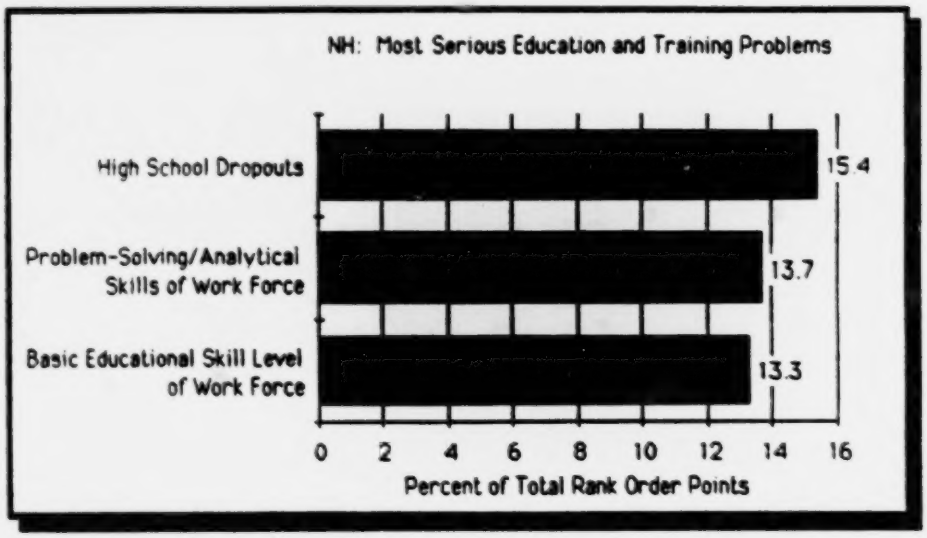
Figure NH-3


NH: Ways Colleges and Universities Should Prepare Work Force for a Global Economy
Global Economic Curriculum
16.6
Educate More Scientists & Engineers
12.9
Expand Foreign Language Requirements
9.2
Improve Technology Transfer
9.2
Expand Basic Research Collaboration
8.1
0 2 4 6 8 10 12 14 16 18
Percent of Total Rank Order Points

Education and Training Problems

Of the three education and training problems emphasized by New Hampshire leaders, two of them, the high school dropout issue and inadequate problem-solving and analytical skills of the workforce are also viewed as major problems facing the state. More than one quarter of those 25 years and older in New Hampshire have not graduated from high school. Basic blue collar jobs such as auto mechanics and paper mill workers now require sophisticated mathematical and reading skills to operate and analyze complex computer systems. Business and industry are needing to spend large sums to train and retrain these workers which is adding to the cost of doing business in New Hampshire.

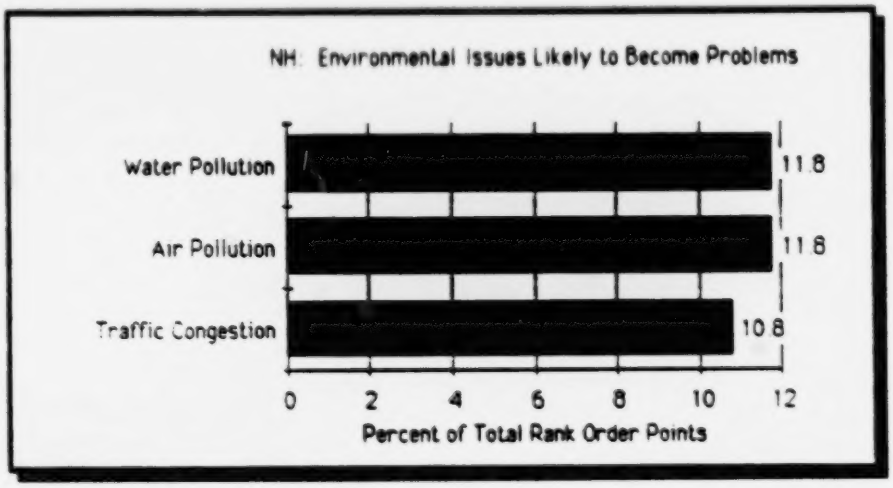
Figure NH-4


NH: Most Serious Education and Training Problems
High School Dropouts
15.4
Problem-Solving/Analytical Skills of Work Force
13.7
Basic Educational Skill Level of Work Force
13.3
0 2 4 6 8 10 12 14 16
Percent of Total Rank Order Points

Environmental Problems

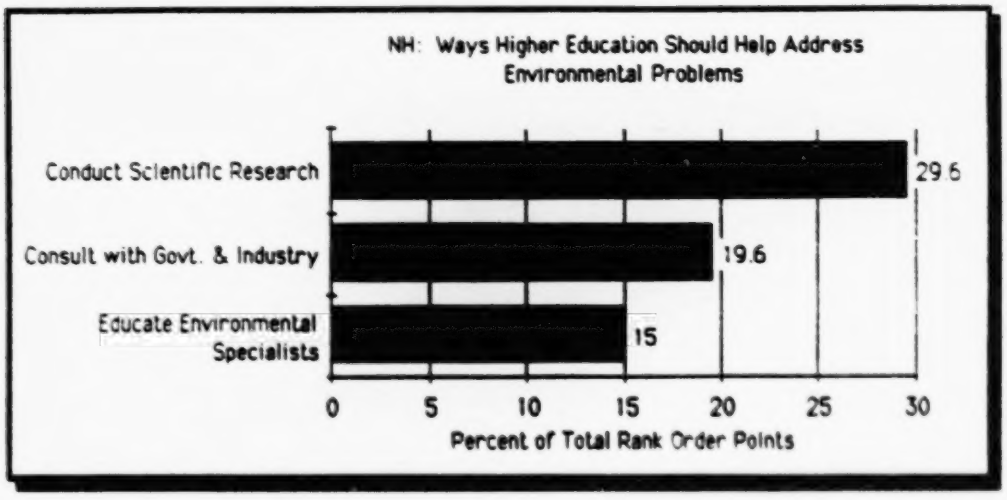
New Hampshire leaders agree with their counterparts in the other two northern tier states that acid rain is the most serious environmental problem currently facing the state.

Figure NH-5



New Hampshire leaders agree with their counterparts in Vermont about the ways that colleges and universities can help the state confront environmental issues.

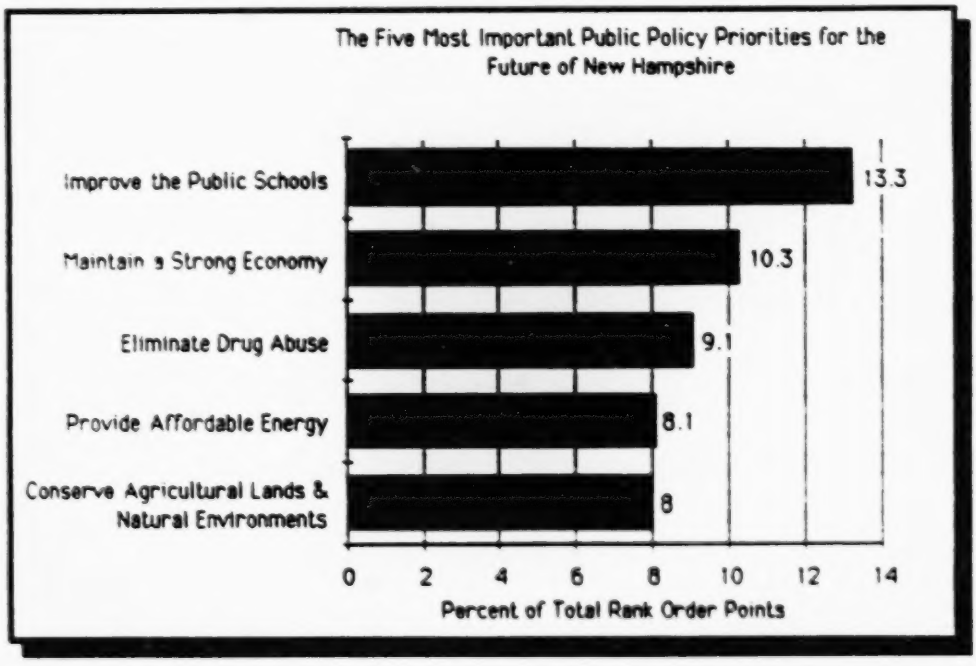
Figure NH--6



Public Policy Issues

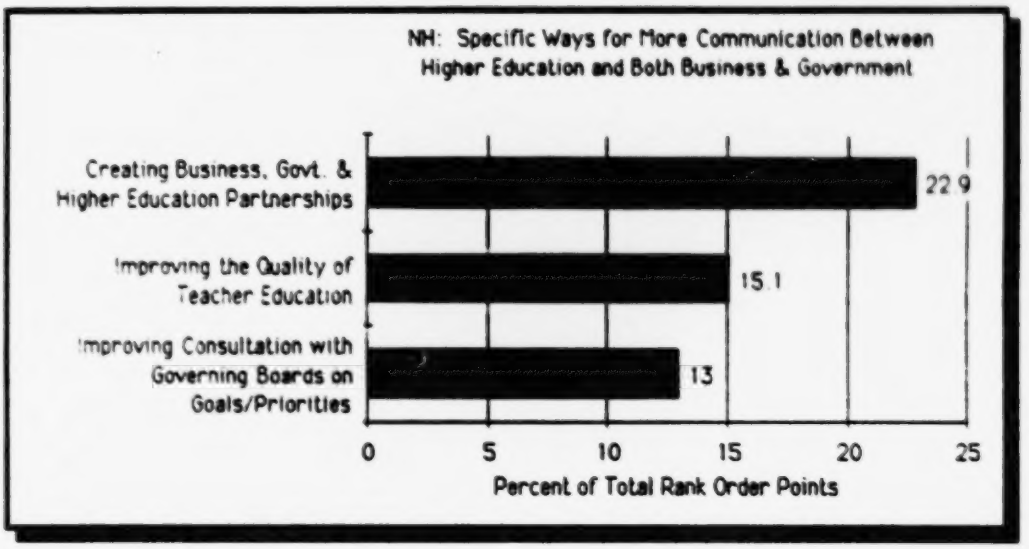
The top three priorities identified by New Hampshire leaders match those selected by New England leaders as a collective group: improving the public schools, maintaining a strong economy and elimination of drug abuse. Conserving agricultural land and providing affordable energy rank four and five in New Hampshire.

Figure NH-7



New Hampshire leaders would like to see colleges and universities heighten communication with public schools in order to improve the quality of teacher education. In addition, the creation of business, government and higher education partnerships as well as improved consultation with governing boards regarding goals and priorities are also considered important in order to increase communication among the three sectors.

Figure NH-8

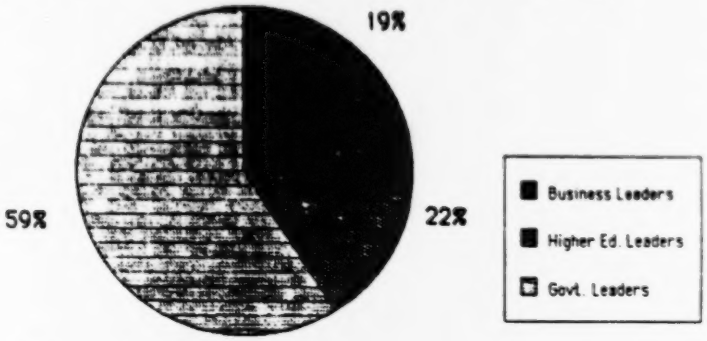


RHODE ISLAND: Business, Government and Higher Education Partnerships: Key to Sustaining the Ocean State's Future Economic Prosperity

RHODE ISLAND

Rhode Island's leadership group was mainly comprised of government leaders, as indicated below.

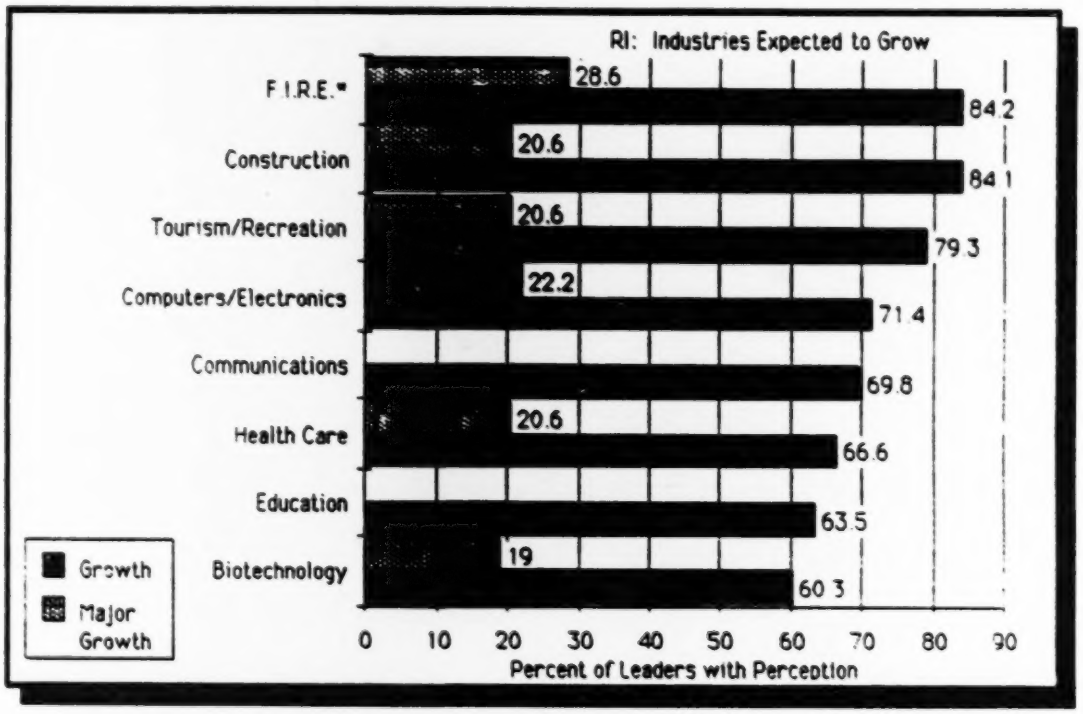
Figure RI-1 RI: Percent of Leaders Completing the Survey



The Economy of Rhode Island

Rhode Island's leaders expect growth for eight industries, five of which are slated for "major" growth. Like Connecticut leaders, Rhode Islanders expect a diverse group of industries to experience major growth. Rhode

Figure RI-2



\+ Only those industries with growth or major growth expected by at least half of the leaders are included in this analysis.

\# Only those industries with major growth expected by at least 18 percent of the leaders are included in this analysis.

* Finance, insurance and real estate.

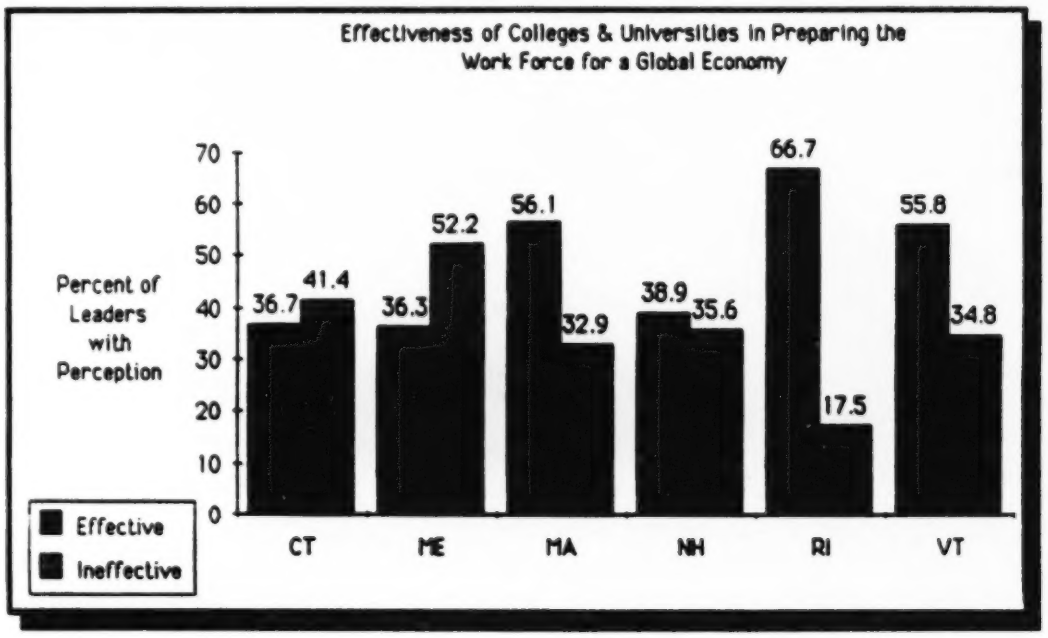
Island's challenge is promoting growth rather than sustaining an already strong economy as is the case in Massachusetts.

Rhode Islanders are a little more cautious in predicting major growth in biotechnology than their counterparts in Connecticut and even more so than leaders in Massachusetts where there are high expectations of major growth. This probably reflects the confidence Connecticut and Massachusetts leaders have in the earlier advances both states have made in developing biotech processes and products, as well as state programs already in place to nurture this new industry. If biotechnology is to become a major industry in Rhode Island, similar efforts for nurturing growth will probably be needed. In terms of size, tourism has become one of the three largest industries of the Ocean State, along with jewelry making and health care. Tourism reached $1 billion in direct sales for 1986 with a substantial gain in international tourism.

Agriculture is the principal industry expected to decline in Rhode Island.

The state's leaders suggest there is only one real impediment to economic growth -- a shortage of skilled technical labor. However, they appear optimistic about the ability of Rhode Island's higher education institutions to prepare the skilled technical labor needed by the state. More than leaders in any other New England state, Rhode Islanders strongly view the state's colleges and universities as effective in preparing the workforce to participate in a global economy.

Figure RI-3

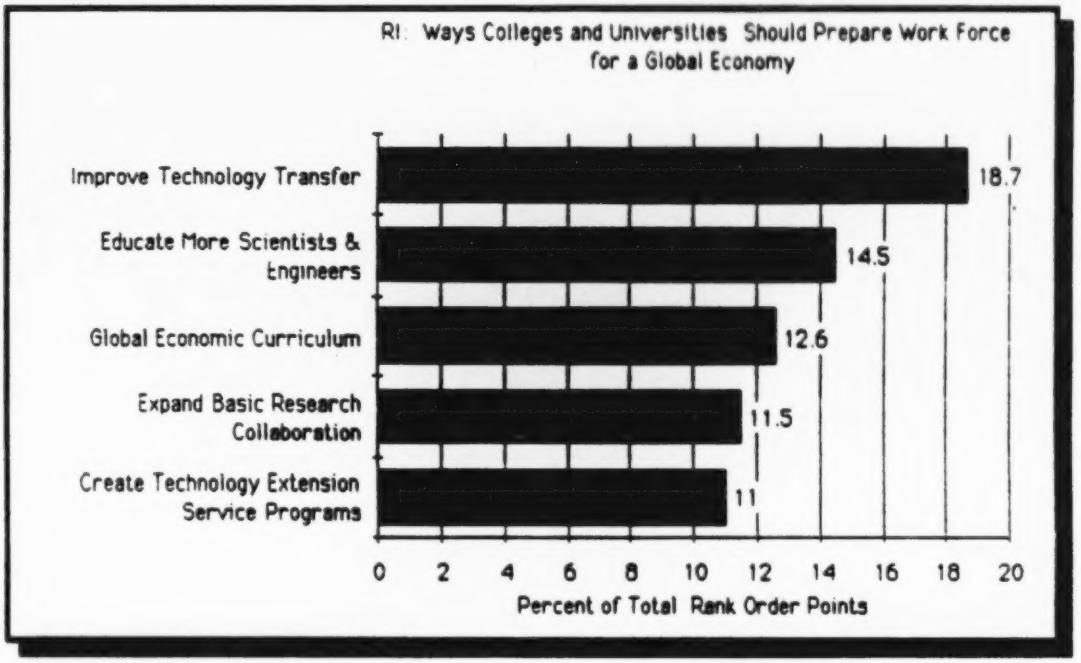


Though not mentioned by a majority of the leaders completing the NEBHE survey, if housing prices continue to increase at the current rate, the cost

of housing is likely to be an impediment to growth in the Ocean State, as it is in Connecticut and Massachusetts. During the first quarter of 1987, housing prices in Providence increased by almost 41 percent over the first quarter of 1986, according to the National Association of Realtors. This was the sharpest increase realized by any city in this national survey. September 1987 reports suggest that at least for now the market has peaked and possibly softened. It is indeed an issue that ought to be watched carefully in terms of its impact upon Rhode Island's economy.

Rhode Island's leaders indicate that the key way for colleges to effectively prepare the state's workforce for a global economy is through working with government and industry to improve technology transfer. Likewise, when asked how colleges and universities could communicate more effectively with business and government, leaders favor the creation of business, government and higher education partnerships. Clearly, collaboration among the three sectors is seen as important for the future of Rhode Island.

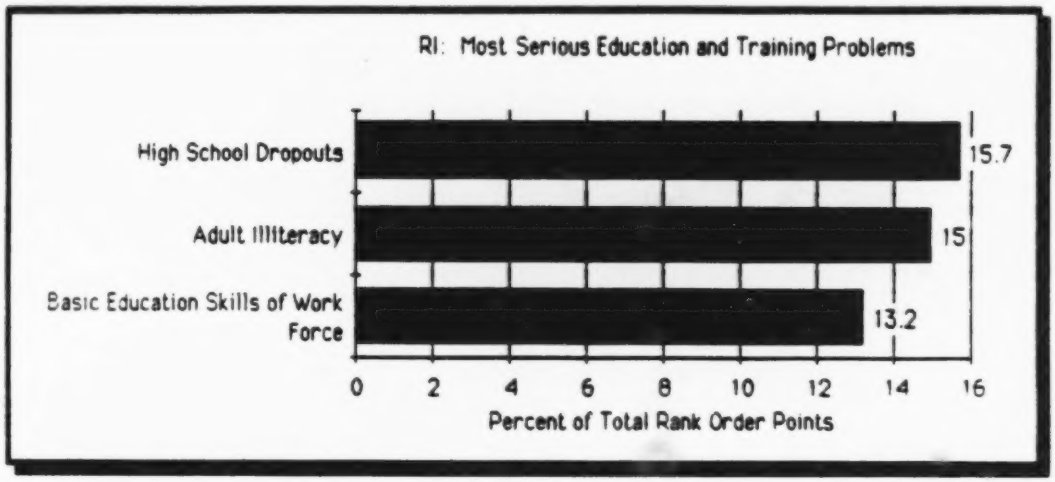
Figure RI-4


RI: Ways Colleges and Universities Should Prepare Work Force for a Global Economy
Improve Technology Transfer
18.7
Educate More Scientists & Engineers
14.5
Global Economic Curriculum
12.6
Expand Basic Research Collaboration
11.5
Create Technology Extension Service Programs
11
0 2 4 6 8 10 12 14 16 18 20
Percent of Total Rank Order Points

Education and Training Problems

Education of recent high school dropouts and training to remedy adult illiteracy are the critical education and training problems facing Rhode Island, both of which are being tackled this year by Rhode Island state government.

Figure RI-5

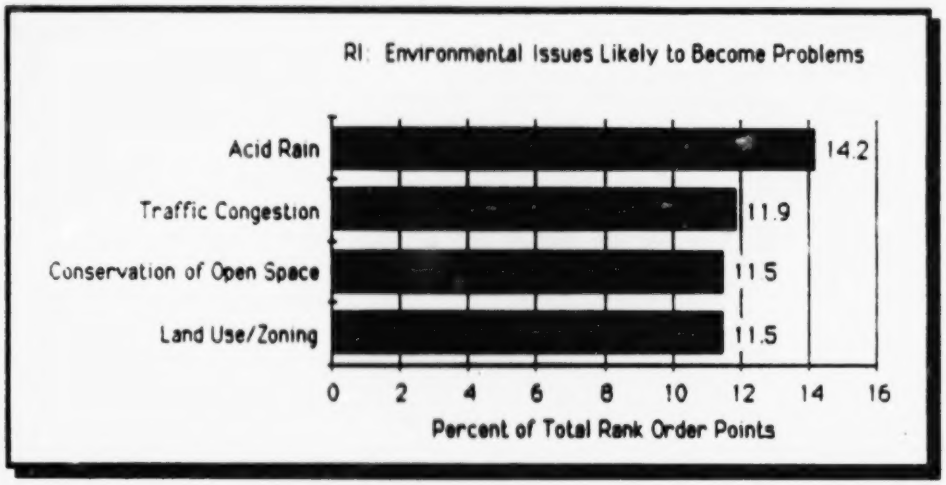


Republican Governor DiPrete set education as his number one priority for 1987; it has also been high on the legislature's agenda. A $3-million dollar illiteracy and dropout prevention bill was passed in June and funding for education is up 10 percent from last year. Solutions to both the literacy and dropout problems are focussed on the lower grade levels. The literacy program requires schools to provide instruction in basic skills for children in kindergarten through third grade and remediation for students who do not reach the basic levels established. Reduced class sizes in the earliest grades are also being considered as a preventative measure against the dropout rate which now averages 26 percent. And $3-million was recently appropriated for improvements to the state college system. Much of the Governor's agenda is based on his concern for economic development in the state and improving education is an integral factor.

Environmental Problems

As is the case with the other southern tier states, hazardous waste and solid waste disposal are seen as the most serious environmental problems facing Rhode Island. Related to the toxic waste issue in Rhode Island, the Governor recently proposed an increase in funds for enforcement of laws against water pollution. The legislature, on the other hand, passed legislation in June to crack down on out-of-state garbage dumping on state landfill sites to begin dealing with the solid waste disposal problems.

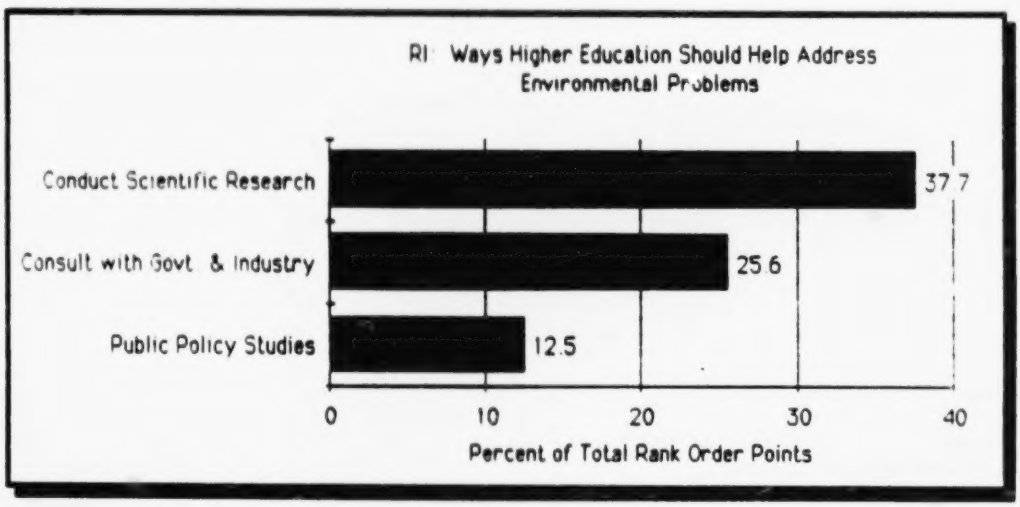
Figure RI-6



A $65-million open-space bond proposal passed in June is hailed as an important step toward preserving natural environment in Rhode Island.

Rhode Island leaders view public policy studies as an important way that institutions of higher education can help the state address environmental issues. In this regard they differ from leaders in both Connecticut and Massachusetts.

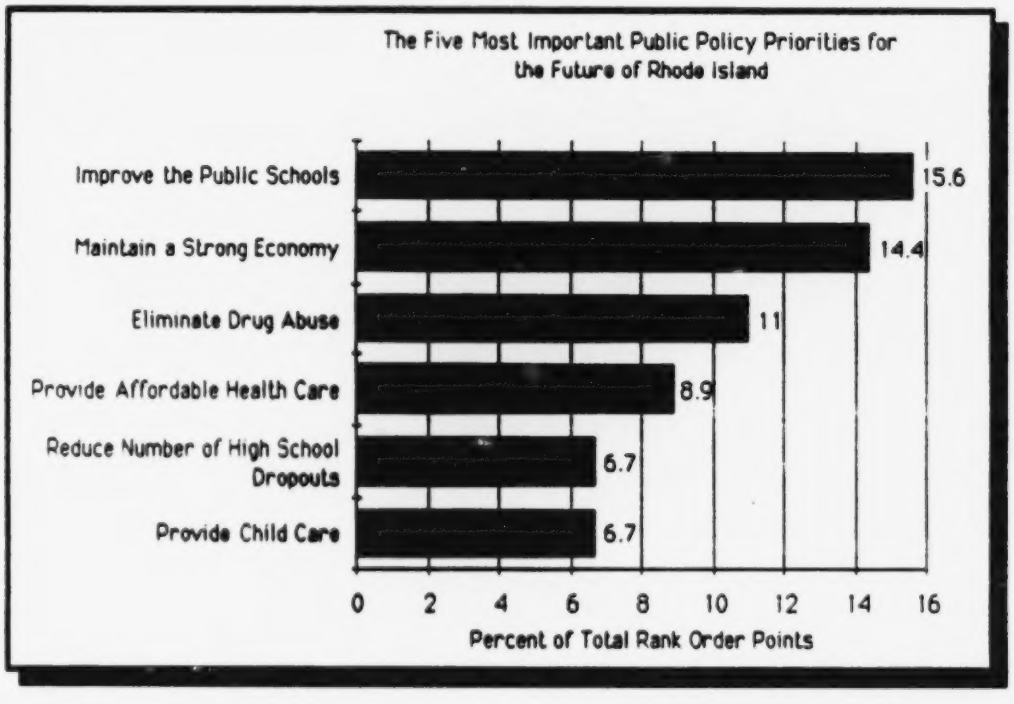
Figure RI-7



Public Policy Priorities

Two public policy issues have gained the unique attention of Rhode Island leaders as important priorities in the state. Both child care for working parents and the provision of affordable health care are seen as important priorities for the Ocean state, but are not indicated as important in the other five New England states.

Figure RI-8

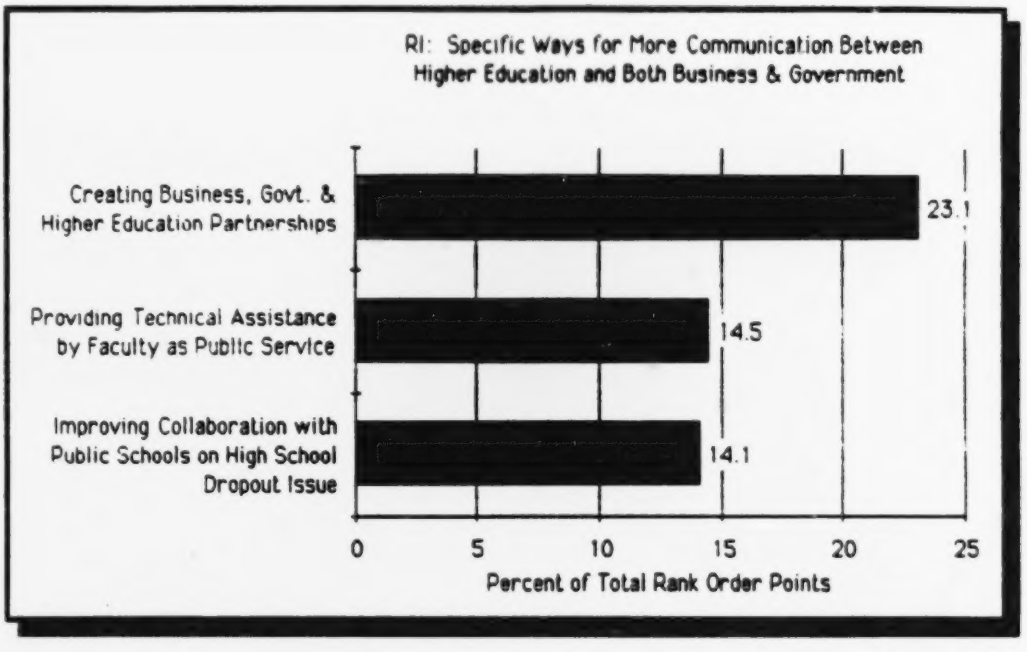


The child care issue has been addressed through a Parental Leave Bill which passed both Houses that guarantees 13 weeks of leave to parents of newborn, newly adopted or seriously ill children. The bill exempts businesses with fewer than 50 employees.

Addressing the high school dropout issue is high on the list of priorities for Rhode Island's leaders as it is for counterparts in the other New England states. Legislation mentioned earlier is designed to deal specifically with this issue, as well as to improve the public schools in general, Rhode Island's leaders number one public policy priority.

As this analysis suggests, many of the state's policy priorities are being addressed by state legislation or through the Governor's agenda. Because of the relatively high response from government leaders in Rhode Island, the NEBHE survey may well reflect state government agenda. Matters of importance to higher education and economic development have been given top priority on the Governor's agenda. Further, government, higher education and business partnerships are seen as important both to the leaders completing the NEBHE survey as well as to government leaders as they establish state policy. Attention has been given to the Rhode Island Partnership for Science and Technology which has been established to provide grants to research and business alliances, many of which involve universities and companies that

Figure RI-9



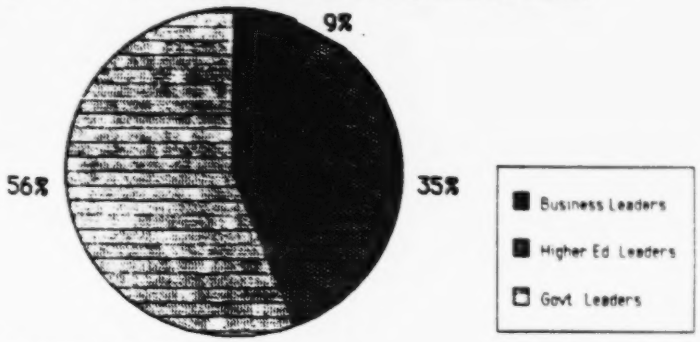
collaborate to develop new processes or products. Initiatives to generate additional funding have been established by the Governor. Improvement of the state's business climate has been stressed as a priority by both the Governor and legislature as they explore incentives for economic development that include creative tax breaks designed to save business approximately $10 million without affecting the state's general treasury, the establishment of a Product Development Corporation, similar to those set up in both Massachusetts and Connecticut, that would assist small businesses or individuals in creating new products and the opening of an office of entrepreneurial assistance within the Department of Economic Development to encourage and support the risk-takers. A great deal of government policy in 1987 is linked either directly or indirectly to economic development, both in the short- and long-term. Maintaining a strong economy, the number two priority of respondents to the NEBHE survey, is being addressed through initiatives that involve members of all three sectors who were surveyed -- business, government and higher education.

VERMONT: Conservation of Agricultural and Natural Environments a Priority as Economy Progresses

VERMONT

The Future of New England leadership survey was largely completed by government leaders in Vermont.

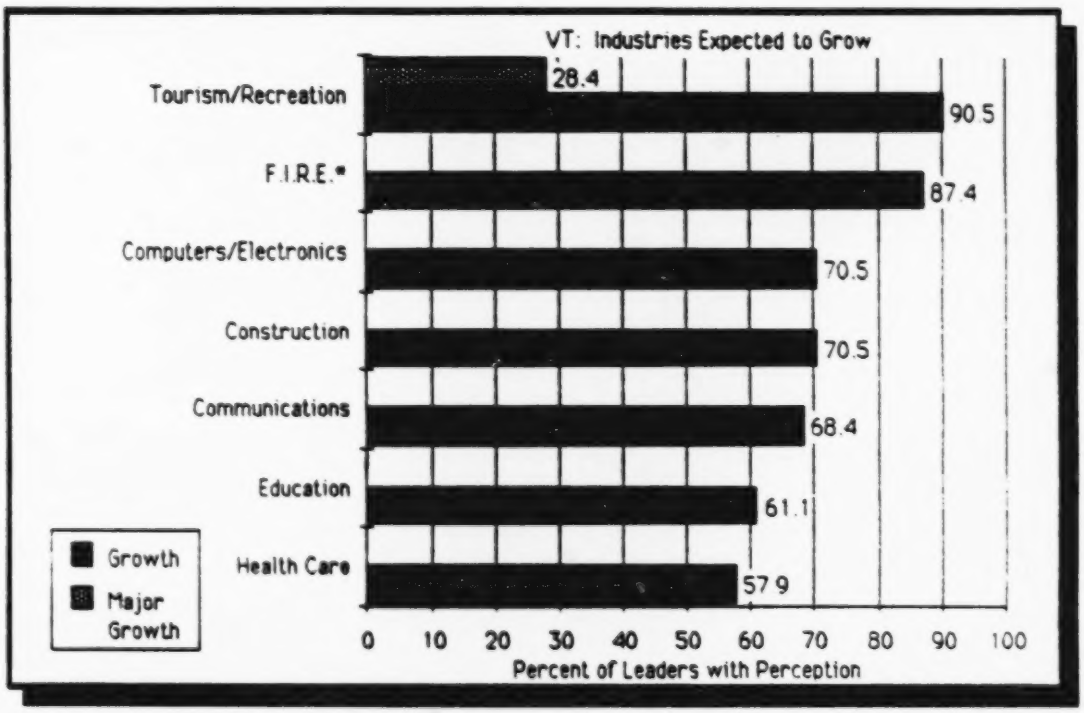
Figure VT-1 VT: Percent of Leaders Completing the Survey



The Economy of Vermont

More than half the leaders of Vermont predict seven industries to continue growing and two industries to undergo major growth.

Figure VT-2



\+ Only those industries with growth or major growth expected by at least half of the leaders are included in this analysis.

\# Only those industries with major growth expected by at least 18 percent of the leaders are included in this analysis.

* Finance, insurance and real estate.

Tourism has long been a stable industry in Vermont and is expected to continue to grow. Second only to manufacturing in terms of numbers employed, it is a $1.5 billion industry supporting 44,000 jobs, directly and indirectly. In terms of computers and electronics, Vermont ranks first in the nation in the per capita number of high-tech workers, largely because of the existence of IBM in Burlington. Even though Vermont has seen a significant decline in manufacturing from a high of 41 percent of all jobs in 1947 to almost 23 percent in 1984, because of the decline of more traditional industries, overall, this state has a relatively well-balanced and diversified economy. High-tech industrial growth and the renewal of some basic industries such as furniture are credited with aiding this balance. Such balance may be responsible for the Green Mountain State's 10-year low in terms of unemployment that was seen in 1986. This same year also saw an increase in per capita income of 7.5 percent.

Transportation is the principal industry expected to remain stable in Vermont by more than half of the leaders.

Agriculture is predicted to decline by almost 79 percent of Vermont leaders, a higher percentage than in any other New England state. Further, such decline impacts Vermont more than the other five states because it has been a major industry here.

Vermont leaders' concern about the declining agricultural industry is obvious in their selecting conservation of agricultural lands and natural environments as the third most important public policy priority in Vermont. And conservation of open space was ranked the second issue most likely to become an environmental problem.

In fact steps have been initiated in Vermont to protect its agricultural and natural environments. Representative Stephen Reynes of Pomfret, who chair's the House National Resources and Energy Committee, suggests that there is an increasing consensus in both the legislature and the Kunin administration about the need for planning for effective management of natural resources in order to control development growth. Reynes intends to introduce a planning bill establishing a Natural Resources and Economic Development Policy for the state. A new commission, formed to protect the state's quality of life by controlling growth, will conduct interviews and hold hearings this fall to gain maximum input on the most appropriate approach to attain this goal. To protect the Green Mountain National Forest and manage its timber industries, the Vermont Forest Service, state officials, wildlife enthuasiasts, recreationists and the timber industry spent eight years devising a 10-year plan, adopted in early 1987, that was acceptable to all groups.

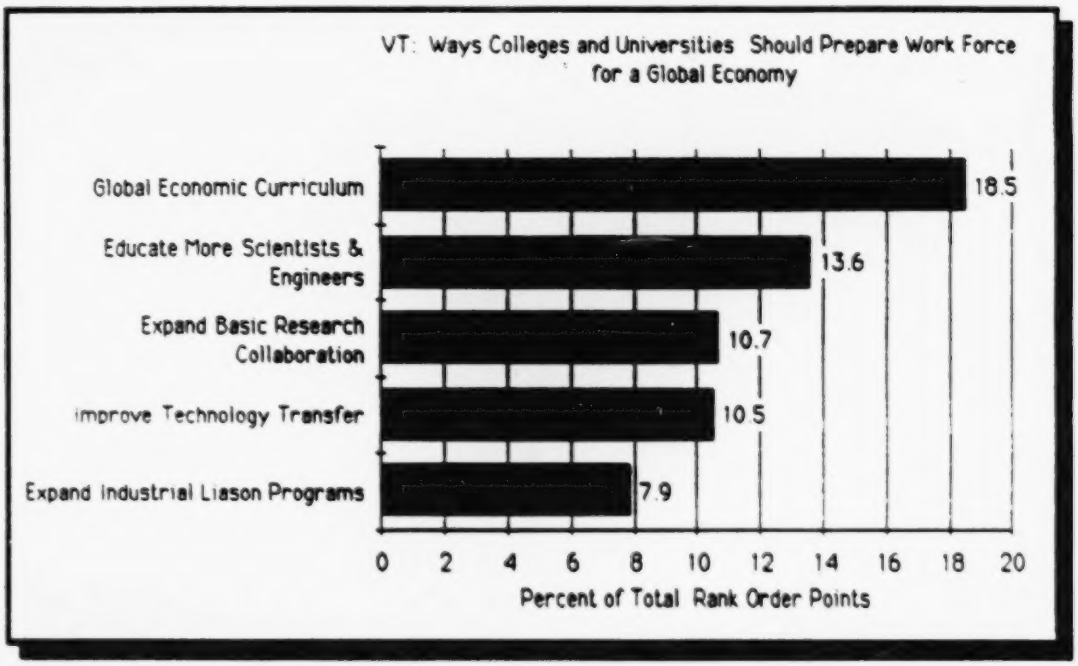
Although economic development is the number one public policy priority in Vermont, the state's leaders and its citizens clearly believe it should not conflict with preservation of the state's natural and agricultural resources. Protecting undeveloped lands is a high priority in Vermont.

Vermont leaders are more optimistic about the state's economy than leaders in the other five states in that they see fewer impediments to growth. Only a shortage of skilled technical labor is viewed as an impediment by more than half of the leaders and few leaders view it as a <u>major</u> impediment.

Less than half of Vermont's leaders cite housing as an impediment to economic growth which may reflect the state's leadership in housing policy. When the Kunin administration's first housing policy was released in June 1987, a coalition of housing, low-income and conservation advocates pushed though legislation to fund a $3-million Vermont Housing and Conservation Trust, which is the nation's first public effort to combine the goals of saving open land and creating affordable housing. Several other more localized strategies to provide affordable housing in the state have also been devised. There is, however, a growing number of homeless in the state represented recently by a busload of homeless activists who demonstrated at the Statehouse, claiming that the state's economic boom has heightened their plight by driving up housing costs while not giving them higher wages in lower-wage service positions.

More than half of Vermont leaders view the state's institutions of higher education as effective in preparing the workforce to participate in a global economy. They believe colleges and universities should continue to prepare the workforce for global economic competitiveness in five basic ways.

Figure VT-3

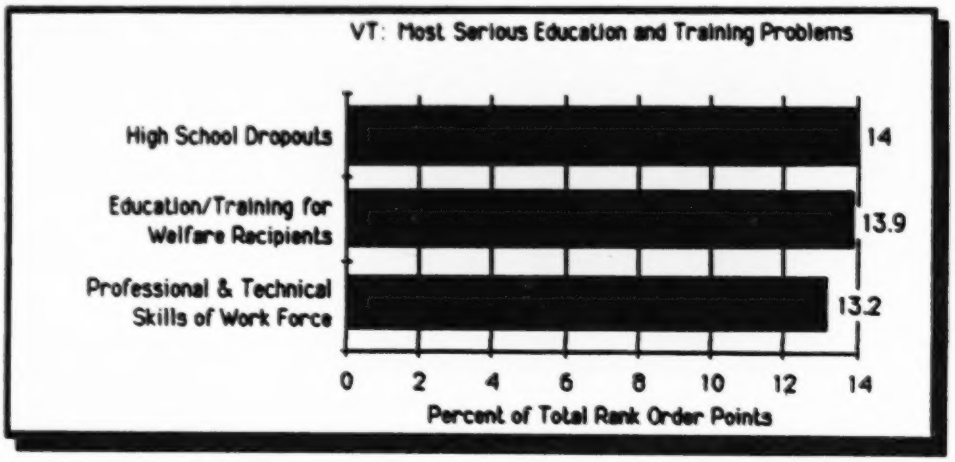

VT: Ways Colleges and Universities Should Prepare Work Force for a Global Economy
Global Economic Curriculum
18.5
Educate More Scientists & Engineers
13.6
Expand Basic Research Collaboration
10.7
Improve Technology Transfer
10.5
Expand Industrial Liason Programs
7.9
0 2 4 6 8 10 12 14 16 18 20
Percent of Total Rank Order Points

* Only those industries expected to decline by at least half of the leaders are included in this analysis.

Education and Training Problems

Only in Connecticut and Vermont was the issue of education and training for welfare recipients mentioned as one of the top three education and training problems. In Vermont, the state is tackling this issue with its "Reach-Up" program, an initiative designed to help welfare recipients through job training that will eventually remove them from the welfare rolls.

Figure VT-4



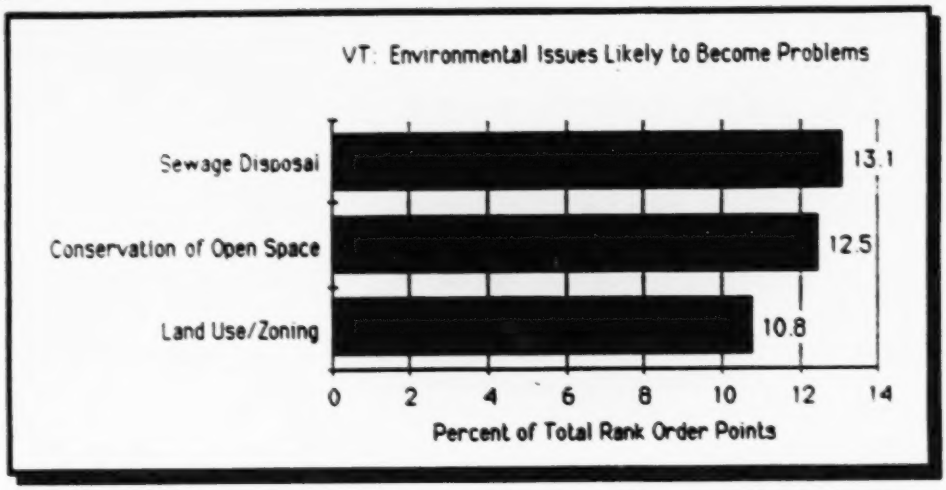
Though not ranked as one of the top three education and training problems, almost 39 percent of this leadership group suggest that enhancing the problem-solving and analytical skills of the work force is a major problem in the state.

Environmental Problems

As is true for the other two northern tier states, acid rain is seen as the state's most serious environmental problem. Solid waste disposal and toxic waste disposal are also considered serious problems. Little has been done in Vermont to solve the acid rain problem because it is primarily caused by industrial midwestern states and therefore a federal government problem. However the state has taken initiatives to deal with waste disposal including tighter regulations for solid waste disposal and underground hazardous waste storage tanks.

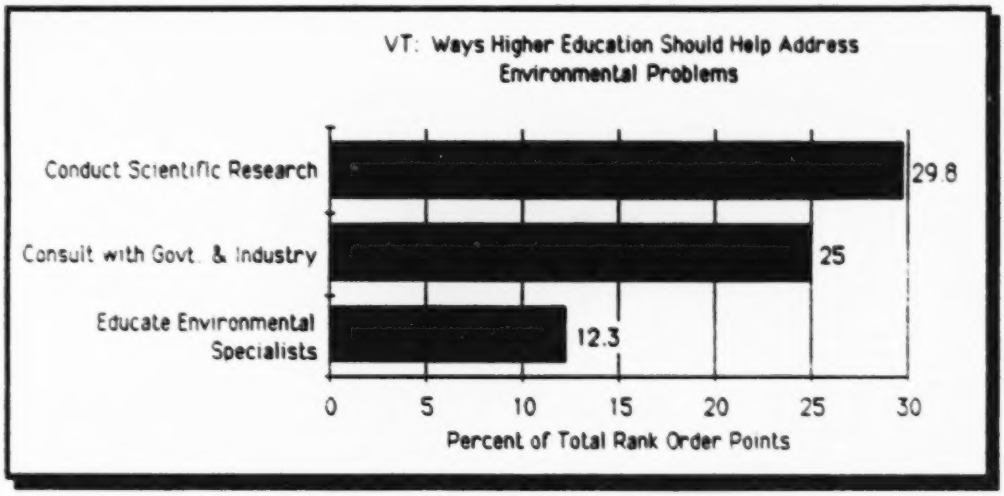
Three environmental issues are predicted likely to become problems if preventive steps are not taken. All three issues reflect the pervasive concern about managing development in the state while securing the quality of life provided by the state's natural environment.

Figure VT-5



Leaders believe that colleges and universities could help the state address these environmental issues in the following three ways.

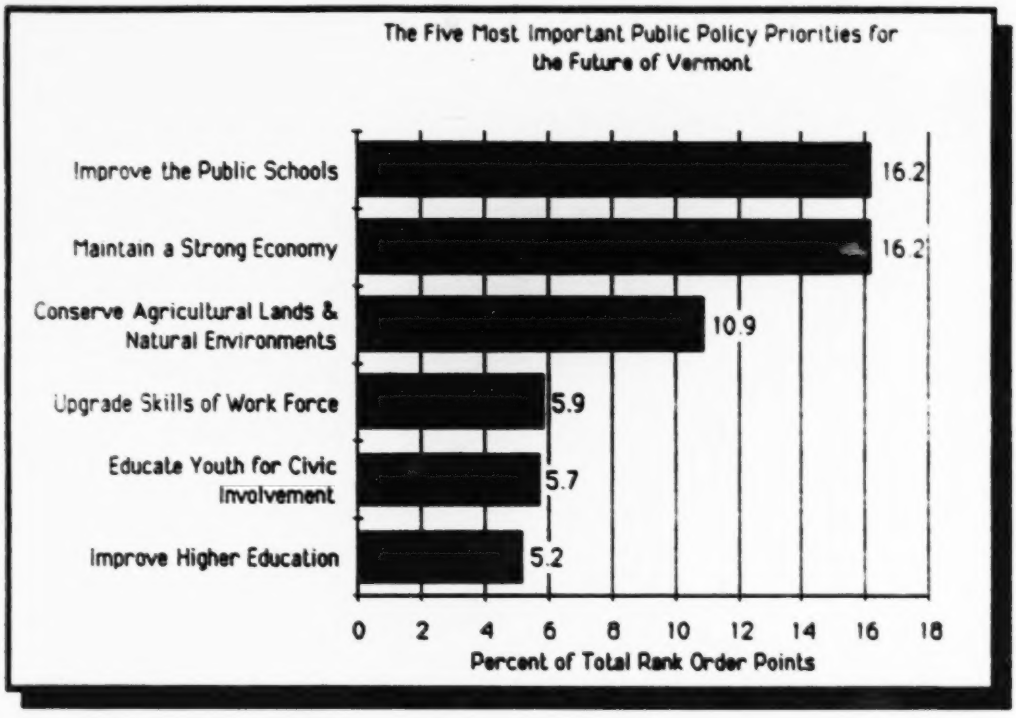
Figure VT-6



Public Policy Priorities

For Vermont leaders the state's number one public policy priority is shared by two issues, maintaining a strong economy and improving the public schools.

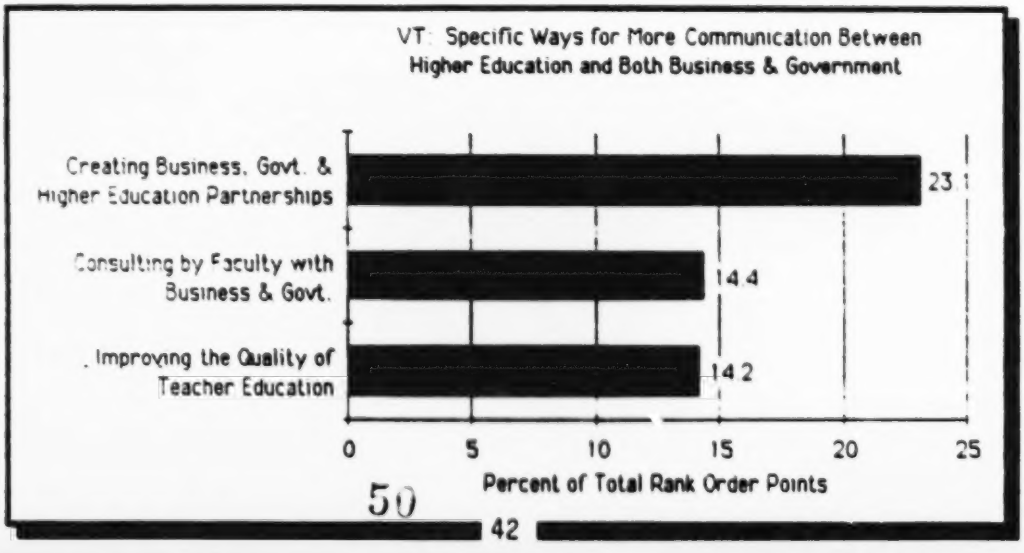
Figure VT-7


The Five Most Important Public Policy Priorities for the Future of Vermont
Improve the Public Schools
16.2
Maintain a Strong Economy
16.2
Conserve Agricultural Lands & Natural Environments
10.9
Upgrade Skills of Work Force
5.9
Educate Youth for Civic Involvement
5.7
Improve Higher Education
5.2
0 2 4 6 8 10 12 14 16 18
Percent of Total Rank Order Points

As previously mentioned, conserving agricultural lands and natural environments is a major public policy priority in Vermont. Unlike their counterparts in the other New England states, Vermont's leaders do not consider drug abuse a problem requiring public policy attention at this time, however they consider educating youth for civic involvement and participation in the democratic process an important policy issue.

Relevant to the importance of improving the state's public schools, Vermont leaders would like to see more effective communication by institutions of higher education with both the business and government communities as well as the public schools in order to improve the quality of teacher education. Two other issues are seen as important in enhancing effective communication between colleges and universities and the broader community.

Figure VT-8


VT: Specific Ways for More Communication Between Higher Education and Both Business & Government
Creating Business, Govt. & Higher Education Partnerships
23.1
Consulting by Faculty with Business & Govt.
14.4
Improving the Quality of Teacher Education
14.2
0 5 10 15 20 25
Percent of Total Rank Order Points

The Future of New England

1987 Survey of Business, Government and Higher Education Leaders

A New England Center for Continuing Education project being conducted by the New England Board of Higher Education with the support of the W.K. Kellogg Foundation

1. What do you see as possible obstacles to future economic growth in your state? Circle one number for each category.

A major impediment	An impediment	A minor impediment	Not an impediment	I don't know	
1	2	3	4	5	A shortage of energy
1	2	3	4	5	A shortage of skilled technical labor
1	2	3	4	5	Cost of labor
1	2	3	4	5	Cost of living
1	2	3	4	5	Cost of housing
1	2	3	4	5	Regulation of industry
1	2	3	4	5	Tax structure
1	2	3	4	5	Other (please specify) _____

2. For what industries do you expect economic growth, stability or decline for your state in the future? Circle one number for each category.

Major growth	Stable growth	No change	Decline	Major Decline	I don't know	
1	2	3	4	5	6	Agriculture
1	2	3	4	5	6	Communication
1	2	3	4	5	6	Construction
1	2	3	4	5	6	Defense
1	2	3	4	5	6	Education
1	2	3	4	5	6	Finance, insurance and real estate
1	2	3	4	5	6	Fishing and other maritime industries
1	2	3	4	5	6	Health care
1	2	3	4	5	6	High technology manufacturing: computer and electronics
1	2	3	4	5	6	High technology manufacturing: biotechnology
1	2	3	4	5	6	Non-high technology manufacturing
1	2	3	4	5	6	Non-professional services
1	2	3	4	5	6	Public utilities
1	2	3	4	5	6	Timber resources
1	2	3	4	5	6	Tourism/recreation
1	2	3	4	5	6	Transportation
1	2	3	4	5	6	Other (please specify) _____

3. It has been suggested that all states of the U.S. must meet the challenge of global economic competition by building new foundations for competitiveness. Taking a long-term perspective, which of the following do you view as potential threats or benefits to building this foundation for your state? Circle one number for each category.

This is a major benefit	This is a benefit	I do not see this as a benefit **or** a threat	This is a threat	This is a major threat	I don't know	
1	2	3	4	5	6	Investments abroad by corporations of your state
1	2	3	4	5	6	Expansion of exports by corporations of your state
1	2	3	4	5	6	Investment by foreign corporations within your state
1	2	3	4	5	6	Educating more scientists and engineers
1	2	3	4	5	6	Expansion of foreign imports to your state
1	2	3	4	5	6	The emergence of newly industrializing economies
1	2	3	4	5	6	Export assistance to corporations of your state
1	2	3	4	5	6	State tax breaks for foreign investment in your state
1	2	3	4	5	6	Special industrial bond financing to enhance foreign investment in your state
1	2	3	4	5	6	Promotion of international tourism in your state
1	2	3	4	5	6	Other (please specify) _____

4. Are colleges and universities in your state effectively involved in preparing the work force to participate in a **global** economy? Circle one number.

1 Very effective
2 Somewhat effective
3 Not very effective
4 Not effective at all
5 I don't know

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5. Please rank order the five (5) most important ways in which colleges and universities can prepare the work force to participate in a global economy, using 1 through 5, where 1 indicates the most important.

___ Working with government and industry to improve technology transfer and the diffusion of new innovations
___ Expanding industrial liaison programs that bring together business and industrial representatives from the U.S. and other nations
___ Creation of new technology extension service programs for U.S. business and industry
___ Expansion of collaborative efforts with government, business and industry in the area of basic research
___ Creating cultural and educational student exchange programs with colleges and universities in other countries
___ Creating business internship exchange programs with other countries for U.S. students
___ Designing an undergraduate curriculum that ensures understanding of a global economy.
___ Expanding foreign travel/study exchange programs for U.S. students
___ Expanding professorial exchange programs with colleges and universities of other countries
___ Expanding foreign language requirements for students
___ Expanding international studies requirements for students
___ Expanding the supply of scientifically and technically educated men and women
___ Other (please specify) _____

_____

6a. What do you see as education or training problems in your state that should be addressed? Circle one number for each category.

A major problem					
A problem					
A minor problem					
Not a problem					
I don't know					
1	2	3	4	5	Education and training for recent high school dropouts
1	2	3	4	5	Adult illiteracy
1	2	3	4	5	Upgrading the professional and technical skills of the present work force
1	2	3	4	5	Upgrading the basic skill level (reading, writing, math, communication) of the present work force
1	2	3	4	5	Retraining for displaced workers
1	2	3	4	5	Education and training for welfare recipients
1	2	3	4	5	Creating a thorough understanding of U.S. history and culture and of other nations
1	2	3	4	5	Enhancing the problem-solving and analytical skills of the work force that will allow for continual learning and absorption of rapidly expanding knowledge
1	2	3	4	5	Other (please specify) _____

_____

6b. Whose **primary** role should it be to **manage** programs that will address the following education or training problems? Circle those numbers for each category that are indicative of those who have the **primary** role, **only.**

Local school districts							
Community education centers							
Community colleges and 2-year technical institutes							
Four-year colleges and universities							
Business and industry							
Other (please specify) _____							
I don't know _____							
1	2	3	4	5	6	7	Education and training for recent high school dropouts
1	2	3	4	5	6	7	Adult illiteracy
1	2	3	4	5	6	7	Upgrading the professional and technical skills of the present work force
1	2	3	4	5	6	7	Upgrading the basic skill level (reading, writing, math, communication) of the present work force
1	2	3	4	5	6	7	Retraining for displaced workers
1	2	3	4	5	6	7	Education and training for welfare recipients
1	2	3	4	5	6	7	Creating a thorough understanding of U.S. history and culture and of other nations
1	2	3	4	5	6	7	Enhancing the problem-solving and analytical skills of the work force that will allow for continual learning and absorption of rapidly expanding knowledge
1	2	3	4	5	6	7	Other (please specify) _____

_____

6c. Whose **primary** responsibility should it be to **fund** the following education or training programs in your state? Circle those numbers for each category that are indicative of those who bear the **primary** responsibility, **only.**

Local government							
State government							
Federal government							
Business and industry							
Tuition funding paid by the consumer							
Other (please specify) _____							
_____							
I don't know							
1	2	3	4	5	6	7	Education and training for recent high school dropouts
1	2	3	4	5	6	7	Adult illiteracy
1	2	3	4	5	6	7	Upgrading the professional and technical skills of the present work force
1	2	3	4	5	6	7	Upgrading the basic skill level (reading, writing, math, communication) of the present work force
1	2	3	4	5	6	7	Retraining for displaced workers
1	2	3	4	5	6	7	Education and training for welfare recipients
1	2	3	4	5	6	7	Creating a thorough understanding of U.S. history and culture and of other nations
1	2	3	4	5	6	7	Enhancing the problem-solving and analytical skills of the work force that will allow for continual learning and absorption of rapidly expanding knowledge
1	2	3	4	5	6	7	Other (please specify) _____

_____

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7. As we move toward the twenty-first century, which of the following are likely to be major environmental problems in your state? Circle one number for each category.

Already a serious one
Very likely to become one
Fairly likely to become one
Not very likely to become one
Problem is presently being or has been alleviated
I don't know

1	2	3	4	5	6	Acid rain
1	2	3	4	5	6	Air pollution
1	2	3	4	5	6	Conservation of open space
1	2	3	4	5	6	Solid waste disposal
1	2	3	4	5	6	Hazardous/toxic waste disposal
1	2	3	4	5	6	Land use/zoning
1	2	3	4	5	6	Nuclear accidents
1	2	3	4	5	6	Sewage disposal
1	2	3	4	5	6	Soil erosion
1	2	3	4	5	6	Traffic congestion
1	2	3	4	5	6	Water pollution
1	2	3	4	5	6	Other (please specify) _____

_____

8. **Who should have the primary** responsibility for reducing the following environmental problems in your state? Circle the numbers for each category that are indicative of those groups who bear the **primary** responsibility, **only.**

Business and industry policymakers
Business and industry employees
Legislators
Governors
Educators who inform the public about the problem
Researchers working to eliminate the problem
Other (please specify)_____

1	2	3	4	5	6	7	Acid rain
1	2	3	4	5	6	7	Air pollution
1	2	3	4	5	6	7	Conservation of open space
1	2	3	4	5	6	7	Solid waste disposal
1	2	3	4	5	6	7	Hazardous/toxic waste disposal
1	2	3	4	5	6	7	Land use/zoning
1	2	3	4	5	6	7	Nuclear accidents
1	2	3	4	5	6	7	Sewage disposal
1	2	3	4	5	6	7	Soil erosion
1	2	3	4	5	6	7	Traffic congestion
1	2	3	4	5	6	7	Water pollution
1	2	3	4	5	6	7	Other (please specify) _____

_____

9. Please indicate how colleges and universities could help your state address environmental issues by selecting three (3) of the following roles. Please rank order your selection using 1 through 3, where 1 indicates the most important role.

__ Consulting with government and industry
__ Dissemination of information to the general public
__ Educating environmental specialists
__ Educational courses for the general student population
__ Public policy studies
__ Scientific research designed to address environmental problems
__ Other (please specify) _____

_____

10. Using the following scale, please rank colleges and universities in terms of their contributions toward enhancing economic development in your state.

1= very effective
2= somewhat effective
3= somewhat ineffective
4= very ineffective
5= not an appropriate role
6= I don't know

Public 2-year community colleges and technical institutes
Public 4-year colleges and universities
Independent 2-year colleges
Independent 4-year liberal arts colleges
Other 4-year independent colleges and universities

__	__	__	__	__	In meeting manpower needs
__	__	__	__	__	In basic research
__	__	__	__	__	In applied research
__	__	__	__	__	In enhancing problem-solving and analytical skills in students
__	__	__	__	__	In technology transfer to the marketplace
__	__	__	__	__	In public service that transfers knowledge and information to the broader community
__	__	__	__	__	Other (please specify) _____

_____

11. In your opinion, which **five** (5) of the following issues in terms of your state's future should be addressed at the present time? Please rank order your selections using 1 through 5, where 1 indicates the most serious issue.

__ Child care for working parents
__ Conserving agricultural lands and natural environments
__ Educating youth for civic involvement and participation in the democratic process
__ Elimination of drug abuse
__ Improving the public schools
__ Improving higher education
__ Improving housing and run-down neighborhoods
__ Maintaining a strong economy
__ Preparing for international economic competition
__ Providing affordable energy for the state
__ Providing affordable health care
__ Providing job training for welfare recipients
__ Reducing crime
__ Reducing the number of high school dropouts
__ Reducing pollution of air, water and land
__ Reducing racial discrimination
__ State tax limitations
__ Upgrading area infrastructure (i.e. roads, bridges, water & sewage systems)
__ Upgrading the skills of today's work force
__ Other (please specify) _____

_____

12a. Do you agree with the view that effective communication should occur more often between your state's higher education institutions and the following groups? Circle one number for each category.

Yes	No	I don't know	
1	2	3	Legislators of your state
1	2	3	Business/industry leaders of your state
1	2	3	The governor

12b. If you agree with the view that more communication should take place, in what ways should it occur? If you select more than one of the following, please rank order your selections using 1 through 5 where 1 indicates the most important way.

___ Provision of technical assistance by college and university faculty provided as a public service
___ Consultation (one-to-one) by college and university faculty members with business and/or government
___ Creation of business, government, and higher education partnerships
___ Publication of scholarly research effectively shared with business and/or government
___ Improved consultation with higher education governing boards on goals and priorities
___ Improved consultation with regard to retraining the labor force
___ Improved collaboration with the public schools in addressing the high school dropout issue
___ Improvement of the quality of teacher education
___ Other (please specify) _____

_____

13. What is your home state?

1 Connecticut
2 Maine
3 Massachusetts
4 New Hampshire
5 Rhode Island
6 Vermont

14. What do you see as the greatest **current contribution** of colleges and universities that will secure the future of your state?

15. What is the single-most important thing that you would like to see colleges and universities do **differently** to enhance the future of your state?

Thank you for your time and cooperation in completing this questionnaire. Please return by **February 9, 1987.**
If you have questions regarding this survey, please call Judith A. Beachler, Director of Research Services, New England Board of Higher Education, 617/357-9620.
This questionnaire is a self-mailer. Please **fold** and **staple** so that return address below appears on outside.

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